

**CONTRACT FOR PROFESSIONAL ENGINEERING SERVICES SOLID WASTE
LANDFILLS AND OTHER RELATED ANCILLARY FACILITIES**

THIS CONTRACT is entered into by and between the **Board of County Commissioners of Nassau County**, a political subdivision of the State of Florida, hereinafter referred to as the “County”, and **S2L, Incorporated**, located at 531 Versailles Drive, Suite 202 Maitland, Florida 32751, hereinafter referred to as the “Consultant” on the day and year last written below (hereinafter “Effective Date”).

WHEREAS, the County desires to obtain professional services for Professional Engineering Services – Solid Waste Landfills and Other Related Ancillary Facilities on an “as needed” continuing basis and said services are more fully described in the County’s Request for Qualifications (“RFQ”), attached hereto and incorporated herein as Exhibit “A”; and

WHEREAS, all terms and conditions of the County’s RFQ, numbered NC23-056-RFQ, and the Consultant’s proposal are incorporated herein and made a part of this Contract by this reference; and

WHEREAS, a copy of the Consultant’s Proposal is attached hereto as Exhibit “B” and made a part hereof; and

WHEREAS, the Consultant desires to render certain professional services as described in Exhibits “A” and “B”, and has the qualifications, experience, staff and resources to perform those professional services; and

WHEREAS, the County, through a competitive selection process conducted in accordance with the requirements of law and County policy, and based upon the Consultant’s assurance that it has the qualifications, experience, staff and resources, the County has determined that it would be in the best interest of Nassau County to award a contract to the Consultant for the rendering of those services described in Exhibits “A” and “B”.

NOW THEREFORE, in consideration of the mutual covenants and agreements hereinafter contained, the parties hereto agree as follows:

SECTION 1. Recitals.

1.1 The above recitals are true and correct and are incorporated herein, in their entirety, by this reference.

SECTION 2. Exhibits.

2.1 The Exhibits listed below are the Exhibits incorporated into and made part of this Contract:

Exhibit A COUNTY’S REQUEST FOR QUALIFICATIONS NC23-056-RFQ (“RFQ”), AS MAY BE MODIFIED BY ADDENDA;

Exhibit B CONSULTANT’S PROPOSAL BUT ONLY TO THE EXTENT RESPONSIVE TO THE COUNTY’S REQUEST FOR PROPOSAL NC23-056-RFQ;

Exhibit C NEGOTIATED FEE SCHEDULE;

SECTION 3. Employment of the Consultant.

3.1 The County hereby agrees to engage the Consultant, and the Consultant hereby agrees to perform the professional services set forth in Exhibit “A”.

SECTION 4. Scope of Services.

4.1 The services shall be performed on an “as needed” basis per project in the form of a Work Authorization and by written Notice to Proceed.

4.2 Services requested by the County or the County’s representative that are not set forth in Exhibit “A” shall be considered additional services. Any request for additional services

and additional fees shall be mutually agreed upon by the parties in writing. This contract alone does not authorize the performance of any work or require the County to place any order for work. The Consultant shall commence the work in accordance with the issuance of a written Notice to Proceed issued by the County.

SECTION 5. The County's Responsibility.

5.1 The County shall provide the Consultant with all required data, information, and services regarding the requirements and objectives for the services under this Contract. The Consultant shall rely upon the accuracy and completeness of any information, reports, data supplied by the County or the County's representative.

5.2 The County hereby designates the Nassau County, Public Works Director, or designee, to act on the County's behalf under this Contract. The Nassau County, Public Works, or designee, under the supervision of the County Manager, shall have complete authority to transmit instructions, receive information, interpret and define the County's policies and decisions with respect to materials, elements and systems pertinent to the provision of the Consultant's services.

SECTION 6. Term of Contract and Option to Extend or Renew.

6.1 The term of this Contract shall begin upon the execution of this Contract by all parties and shall terminate three (3) years from the date of execution. The term of this Contract may be extended in one (1) year increments, for up to two (2) years, upon mutual written agreement between the Consultant and the County. Prior to completion of each exercised contract term, the Consultant may request an adjustment to hourly rates based on changes in the Consumer Price Index (CPI). Approval of any requests must be in writing, in the same formality as the original agreement. It is the Consultant's responsibility to request any rate adjustment under this

provision. For any adjustment to commence on the first day of any exercised option period, the Consultant's request for adjustment should be submitted 90 calendar days prior to expiration of the then current contract term. The Consultant's adjustment request should not be in excess of the relevant pricing index change, unless approved by County. If no adjustment request is received from the Consultant, the County will assume that the Consultant has agreed that the optional term may be exercised without rate adjustment. Any adjustment request received after the commencement of a new option period may not be considered. The County Manager is hereby authorized to execute any contract renewal, amendment, and/or modification upon approval by the County Attorney's Office. Any extension or amendment to this Contract shall be subject to availability of funds of the County as set forth in Section 11 hereinbelow.

6.2. In the event that this Contract is continued beyond the term provided above by mutual consent of the parties and not reduced to writing, this Contract shall be carried out on a month-to-month basis and shall not constitute an implied renewal of the Contract. Said month-to-month extension shall be upon the same terms of the Contract and at the compensation and payment provided herein.

SECTION 7. Compensation.

7.1 The Consultant shall be compensated in an amount not to exceed Two Million Dollars and 00/100 (\$2,000,000), for initial term of Contract in accordance with Exhibit "C". No payment shall be made without a proper County Notice to Proceed.

7.2 The Consultant shall prepare and submit to the Public Works Director for approval, an invoice for the services rendered, with a copy provided to invoices@nassaucountyfl.com. Invoices for services shall be paid in accordance with the Florida Prompt Payment Act found at Section 218.70, Florida Statutes. All invoices shall be

accompanied by a report or statement identifying the nature of the work performed, the hours required and compensation for the work performed. The report or statement shall show a summary of fees. The County reserves the right to withhold payment to the Consultant for failure to perform the work in accordance with the provisions of this Contract, and the County shall promptly notify the Consultant in writing if any invoice or report is found to be unacceptable and will specify the reasons therefor. The Consultant shall have thirty (30) days to cure any failure upon written notice. Consultant shall honor all purchase orders or work authorizations issued prior to the expiration of the term of this Contract.

7.3 All representation, indemnifications, warranties and guaranties made in, required by or given in accordance with this Contract, as well as all continuing obligations indicated in this Contract, will survive final payment and termination or completion of this Contract.

7.4 Final Invoice: Consultant shall submit to County Consultant's final/last billing to County clearly marked as "Final Invoice." Submittal of the Final Invoice by Consultant to County shall indicate that all services have been performed by Consultant and that all charges and costs have been invoiced by the Consultant to County and that there is no further work to be performed and no further invoices to be submitted under this Contract.

SECTION 8. Standard of Care.

8.1 The Consultant shall exercise the same degree of care, skill, and diligence in the performance of the services as is ordinarily provided by a professional under similar circumstances, at the same time, and in the same locality. In the County's sole discretion, upon request by the County, the Consultant shall, at no additional cost to the County, re-perform services which in the sole discretion of the County do not meet the foregoing standard of care.

SECTION 9. Equal Opportunity Employment.

9.1 In connection with the work to be performed under this Contract, the Consultant agrees to comply with the applicable provisions of State and Federal Equal Employment Opportunity statutes and regulations.

SECTION 10. Access to Premises.

10.1 The County shall be responsible for providing access to all project sites (if required), and for providing project site specific information.

SECTION 11. Funding.

11.1 The County's performance and obligation under this Contract is contingent upon an annual appropriation by the Board of County Commissioners for subsequent fiscal years and is subject to termination based on lack of funding.

SECTION 12. Expenses.

12.1 The Consultant shall be responsible for all expenses incurred while performing the services under this Contract including, but not limited to, license fees, memberships and dues; automobile and other travel expenses; meals and entertainment; insurance premiums; and all salary, expenses and other compensation paid to the Consultant's agents, if any, hired by the Consultant to complete the work under this Contract.

SECTION 13. Taxes, Liens, Licenses and Permits.

13.1 The Consultant recognizes that the County, by virtue of its sovereignty, is not required to pay any taxes on the services or goods purchased under the terms of this Contract. As such, the Consultant shall refrain from including taxes in any billing. The Consultant is placed on notice that this exemption generally does not apply to nongovernmental entities, contractors, or subcontractors. Any questions regarding this tax exemption shall be addressed to the County Manager.

13.2 The Consultant shall secure and maintain all licenses and permits required to perform the services under this Contract and to pay any and all applicable sales or use tax, or any other tax or assessment which shall be imposed or assessed by any and all governmental authorities, required under this Contract, and to meet all federal, state, county and municipal laws, ordinances, policies and rules.

13.3 The Consultant acknowledges that property being improved that is titled to the County, shall not be subject to a lien of any kind for any reason. The Consultant shall include notice of such exemptions in any subcontracts and purchase orders issued under this Contract.

SECTION 14. Governing Law, Venue and Compliance with Laws.

14.1 This Contract shall be deemed to have been executed and entered into within the State of Florida and any dispute arising hereunder, shall be governed, interpreted and construed according to the laws of the State of Florida, the Ordinances of Nassau County, and any applicable federal statutes, rules and regulations. Any and all litigation arising under this Contract shall be brought in Nassau County, Florida, and any trial shall be non-jury. Any mediation, pursuant to litigation, shall occur in Nassau County, Florida.

14.2 The Consultant shall comply with applicable regulatory requirements including federal, state, and local laws, rules, regulations, codes, orders, criteria and standards.

SECTION 15. Modifications.

15.1 The terms of this Contract may be modified only upon the written and mutual consent of both parties, and approval by appropriate legal authority in the County.

SECTION 16. Assignment and Subcontracting.

16.1 The Consultant shall not assign, sublet, convey or transfer its interest in this Contract without the prior written consent of the County.

16.2 In order to assign this Contract, or to subcontract any of the work requirements to be performed, the Consultant shall ensure and provide assurances to the County, that any subcontractor selected for work under this Contract has the necessary qualifications and abilities to perform in accordance with the terms and conditions of this Contract. The Consultant shall provide the County with the names of any subcontractor considered for work under this Contract; the County reserves the right to reject any subcontractor whose qualifications or performance, in the County's sole discretion, are insufficient. The Consultant shall be responsible for all work performed and all expenses incurred with the project. Any subcontract arrangements shall be evidenced by a written document available to the County upon request. The Consultant further agrees that the County shall not be liable to any subcontractor for any expenses or liabilities incurred under the subcontract. The Consultant, at its expense, shall defend the County against such claims.

16.3 The Consultant shall make payments to any of its subcontractors within seven (7) working days after receipt of full or partial payments from the County in accordance with Section 287.0585, Florida Statutes, unless otherwise stated in the contracts between the Consultant and subcontractors. The Consultant's failure to pay its subcontractor(s) within seven (7) working days shall result in a penalty charged against the Consultant and paid to the subcontractors in the amount of one-half of one percent (0.50%) of the amount due per day from the expiration of the period allowed herein for payment. Such penalty shall be in addition to the actual payments owed and shall not exceed fifteen percent (15%) of the outstanding balance due.

SECTION 17. Severability.

17.1 If any section, subsection, sentence, clause, phrase, or portion of this Contract is, for any reason, held invalid, unconstitutional, or unenforceable by any Court of Competent

Jurisdiction, such portion shall be deemed as a separate, distinct, and independent provision, and such holding shall not affect the validity of the remaining portions thereof.

SECTION 18. Termination for Default.

18.1 If the Consultant fails to perform any of its obligations under this Contract, and if such default remains uncured for a period of more than fifteen (15) days after notice thereof was given in writing by the County to the Consultant, then the County may, without prejudice to any right or remedy the County may have, terminate this Contract.

18.2 Upon termination of this Contract, the Consultant shall immediately (1) stop work on the date specified; (2) terminate and settle all orders and subcontracts relating to the performance of the terminated work; (3) transfer all work in process, completed work, and other materials related to the terminated work to the County; (4) render to the County all property belonging to the County, including but not limited to, equipment, books, and records.

SECTION 19. Termination for Convenience.

19.1 The County reserves the right to terminate this Contract in whole or part by giving the Consultant written notice at least thirty (30) days prior to the effective date of the termination. Upon receipt of written notice of termination from the County, the Consultant shall only provide those services and/or materials specifically approved or directed by the County. All other rights and duties of the parties under the Contract shall continue during such notice period, and the County shall continue to be responsible to the Consultant for the payment of any obligations to the extent such responsibility has not been excused by breach or default of the Consultant. The Consultant shall promptly contact the County to make arrangements to render to the County all property belonging to the County, including but not limited to, equipment, books, and records.

SECTION 20. Nondisclosure of Proprietary Information.

20.1 The Consultant shall consider all information provided by the County and all reports, studies, calculations, and other documentation resulting from the Consultant's performance of the services to be proprietary unless such information is available from public sources. The Consultant shall not publish or disclose proprietary information for any purpose other than the performance of the services without the prior written authorization of the County or in response to legal process.

SECTION 21. Contingent Fees.

21.1 The Consultant warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for the Consultant to solicit or secure this Contract and that it has not paid or agreed to pay any person, company, corporation, individual or firm, other than a bona fide employee working solely for the Consultant, any fee, commission, percentage, gift or any other consideration contingent upon or resulting from the award or making of this Contract.

SECTION 22. Ownership of Documents.

22.1 The Consultant shall be required to work in harmony with other County consultants relative to providing information requested in a timely manner and in the specified form. All documents, records, disks, original drawings, or other information shall become the property of the County upon completion for its use and distribution as may be deemed appropriate by the County.

SECTION 23. Force Majeure.

23.1 Neither party of this Contract shall be liable to the other for any cost or damages if the failure to perform the Contract arises out of causes beyond the control and without the fault

or negligence of the parties. Such causes may include, but are not restricted to, acts of nature, fires, quarantine restrictions, strikes and freight embargoes. In all cases, the failure to perform shall be totally beyond the control and without any fault or negligence of the party.

23.2 In the event of delay from the foregoing causes, the party shall take all reasonable measures to mitigate any and all resulting delay or disruption in the party's performance obligation under this Contract. If the delay is excusable under this section, the delay shall not result in any additional charge or cost under the Contract to either party. In the case of any delay that the Consultant believes is excusable under this section, the Consultant shall notify the County in writing of the delay or potential delay and describe the cause of the delay either: (1) within ten (10) calendar days after the cause that created or will create the delay first arose, if the Consultant could reasonably foresee that a delay could occur as a result; or (2) within five (5) calendar days after the date the Consultant first had reason to believe that a delay could result, if the delay is not reasonably foreseeable. THE FOREGOING SHALL CONSTITUTE THE CONSULTANT'S SOLE REMEDY OR EXCUSE WITH RESPECT TO DELAY. Providing notice in strict accordance with this section is a condition precedent to such remedy. The County, in its sole discretion, shall determine if the delay is excusable under this section and shall notify the Consultant of its decision in writing. No claim for damages, other than for an extension of time, shall be asserted against the County. The Consultant shall not be entitled to an increase in the Contract price or payment of any kind from the County for direct, indirect, consequential, impact, or other costs, expenses or damages, including but not limited to costs of acceleration or inefficiency arising because of delay, disruption, interference, or hindrance from any cause whatsoever. If performance is suspended or delayed, in whole or in part, due to any of the causes described in this section, after the causes have ceased to exist, the Consultant shall

perform at no increased cost, unless the County determines, in its sole discretion, that the delay will significantly impair the value of the Contract to the County, in which case, the County may do any or all of the following: (1) accept allocated performance or deliveries from the Consultant, provided that the Consultant grants preferential treatment to the County with respect to products or services subjected to allocation; (2) purchase from other sources (without recourse to and by the Consultant for the related costs and expenses) to replace all or part of the products or services that are the subject of the delay, which purchases may be deducted from the Contract quantity; or (3) terminate the Contract in whole or in part.

SECTION 24. Access And Audits of Records.

24.1 The Consultant shall maintain adequate records to justify all charges, expenses, and costs incurred in providing the services and materials for at least three (3) years after completion of work contemplated under this Contract. The County and the County Clerk of Court shall have access to such books, records, and documents as required in this section for the purpose of inspection or audit during normal business hours upon five (5) days' written notice to the Consultant.

SECTION 25. Independent Consultant Status.

25.1 The Consultant shall perform the services under this Contract as an independent contractor and nothing contained herein shall be construed to be inconsistent with this relationship or status. Nothing in this Contract shall be interpreted or construed to constitute the Consultant or any of its agents or employees to be an agent, employee or representative of the County.

25.2 The Consultant and the County agree that during the term of this Contract: (a) the Consultant has the right to perform services for others; (b) the Consultant has the right to

perform the services required by this Contract; and (c) the Consultant has the right to hire assistants as subcontractors, or to use employees to provide the services required by this Contract.

SECTION 26. Indemnification.

26.1 The Consultant shall indemnify and hold harmless the County and its agents and employees from all claims, liabilities, damages, losses, expenses and costs, including attorney's fees, arising out of or associated with or caused by the negligence, recklessness, or intentionally wrongful conduct of the Consultant or any persons employed or utilized by the Consultant, in the performance of this Contract. The Consultant shall, at its own expense, defend any and all such actions, suits, or proceedings which may be brought against the County in connection with the Consultant's performance under this Contract.

SECTION 27. Insurance.

27.1 The Consultant shall provide and maintain at all times during the term of this Contract, without cost or expense to the County, such commercial (occurrence form) or comprehensive general liability, workers compensation, professional liability, and other insurance policies as detailed in Exhibit "A". The policy limits required are to be considered minimum amounts.

27.2 The Consultant shall provide to the County a Certificate of Insurance for all policies of insurance and renewals thereof in a form acceptable to the County. Said certificates shall provide that the Nassau County Board of County Commissioners is an additional insured, and that the County shall be notified in writing of any reduction, cancellation or substantial change of policy or policies at least thirty (30) days prior to the effective date of said action with the exception of ten (10) days for non-payment. All insurance policies shall be issued by responsible

companies who are acceptable to the County and licensed and authorized under the laws of the State of Florida.

SECTION 28. Dispute Resolution Process.

28.1 In the event of a dispute regarding the interpretation of the terms of this Contract, the County, in its sole discretion, may elect to use the dispute resolution process as set forth in this section.

28.2 In the event the County elects to use the dispute resolution process under this section, the County shall send a written communication to the Consultant pursuant to Section 35 hereinbelow. The written notification shall set forth the County's interpretation of the terms of this Contract.

28.3 The County shall then set a date and time for the parties to meet with the County Manager or designee. This meeting shall be set no more than twenty (20) days from the date that the written communication was sent to the Consultant. The Consultant may submit a written response to the County's written communication no less than five (5) days prior to the meeting with the County Manager or designee.

28.4 If no satisfactory resolution as to the interpretation of the Contract terms reached at the meeting with the County Manager or designee, then the parties may elect to submit the dispute to mediation in accordance with mediation rules as established by the Florida Supreme Court. Mediators shall be chosen by the County and the cost of mediation shall be borne by the Consultant. The Consultant shall not stop work during the pendency of the dispute resolution or mediation process as set forth in this section.

SECTION 29. E-Verify.

29.1 Pursuant to the requirements of Section 448.095, Florida Statutes, the Consultant, and any subcontractor thereof, shall register and use the United States Department of Homeland Security's E-Verify system ("E-Verify") to verify the work authorization status of all new employees of the contractor or subcontractor.

29.2 If the Consultant enters into a contract with a subcontractor, the subcontractor must provide the Consultant with an affidavit stating that the subcontractor does not employ, contract with, or subcontract with an unauthorized alien. The Consultant shall maintain a copy of such affidavit for the duration of this Contract.

29.3 If the County has a good faith belief that a subcontractor knowingly violated this Section, but the Consultant otherwise complied with this Section, then the County shall promptly notify the Consultant and order the Consultant to immediately terminate this Contract with the subcontractor.

29.4 A contract terminated under this Section is not a breach of contract and may not be considered as such. If the County terminates this Contract with the Consultant under this Section, the Consultant may not be awarded a public contract for at least 1 year after the date on which this Contract was terminated. A Consultant is liable for any additional costs incurred by the County as a result of the termination of this Contract.

29.5 The County, Consultant, or subcontractor may file a cause of action with a circuit or county court to challenge a termination under Section 29.4 no later than 20 calendar days after the date on which this Contract was terminated.

SECTION 30. Public Records.

30.1 The County is a public agency subject to Chapter 119, Florida Statutes. **IF THE CONSULTANT HAS QUESTIONS REGARDING THE APPLICATION OF**

CHAPTER 119, FLORIDA STATUTES, TO THE CONSULTANT'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT (904) 530-6090, RECORDS@NASSAUCOUNTYFL.COM, 96135 NASSAU PLACE, SUITE

6, YULEE, FLORIDA 32097. Under this Contract, to the extent that the Consultant is providing services to the County, and pursuant to Section 119.0701, Florida Statutes, the Consultant shall:

- a. Keep and maintain public records required by the County to perform the service.
- b. Upon request from the County's custodian of public records, provide the County with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in this chapter or as otherwise provided by law.
- c. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the Contract term and following completion of the Contract if the Consultant does not transfer the records to the County.
- d. Upon completion of the Contract, transfer, at no cost, to the County all public records in possession of the Consultant or keep and maintain public records required by the County to perform the service. If the Consultant transfers all public records to the County upon completion of the Contract, the Consultant shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the Consultant keeps and maintains public records upon completion of

the Contract, the Consultant shall meet all applicable requirements for retaining public records. All records stored electronically shall be provided to the County, upon request from the County's custodian of public records, in a format that is compatible with the information technology systems of the County.

30.2 A request to inspect or copy public records relating to the County's contract for materials shall be made directly to the County. If the County does not possess the requested records, the County shall immediately notify the Consultant of the request, and the Consultant shall provide the records to the public agency or allow the records to be inspected or copied within a reasonable time.

30.3 If the Consultant does not comply with the County's request for records, the County shall enforce the Contract provisions in accordance with the Contract.

30.4 If the Consultant fails to provide the public records to the County within a reasonable time, the Consultant may be subject to penalties under Section 119.10, Florida Statutes.

30.5 If a civil action is filed against the Consultant to compel production of public records relating to the Contract, the Court shall assess and award against the Consultant the reasonable costs of enforcement, including reasonable attorney fees if:

- a. The Court determines that the Consultant unlawfully refused to comply with the public records request within a reasonable time; and
- b. At least eight (8) business days before filing the action, the plaintiff provided written notice of the public records request, including a statement that the Consultant has not complied with the request, to the County and to the Consultant.

30.6 A notice complies with Section 30.5 b. hereinabove, if it is sent to the County's

custodian of public records and to the Consultant at the Consultant's address listed on its Contract with the County or to the Consultant's registered agent. Such notices shall be sent pursuant to Section 35 hereinbelow.

30.7 If the Consultant complies with a public records request within eight (8) business days after the notice is sent, the Consultant is not liable for the reasonable costs of enforcement.

SECTION 31. Disclosure Of Litigation, Investigations, Arbitration or Administrative Decisions.

31.1 During the term of this Contract, or any extension thereto, the Consultant shall have the continued duty to disclose to the County Attorney, in writing, upon occurrence, all civil or criminal litigation, arbitration, mediation, or administrative proceeding involving the Consultant. If the existence of the proceeding causes the County concerns that the Consultant's ability or willingness to perform this contract is jeopardized, the Consultant may be required to provide the County with reasonable written assurance to demonstrate the Consultant can perform the terms and conditions of the Contract.

SECTION 32. Scrutinized Companies and Public Entity Crimes.

32.1 The Consultant is directed to the Florida Public Entities Crim Act, Section 287.133, Florida Statutes, regarding Scrutinized Companies, and represents to the County that the Consultant is qualified to transact business with public entities in Florida, and to enter into and fully perform this Contract subject to the provisions stated herein. Failure to comply with any of the above provisions will be considered a material breach of the Contract.

SECTION 33. Anti-Discrimination.

33.1 The Consultant agrees that it will not discriminate in employment, employee development, or employee advancement because of religious or political opinions or affiliations,

race, color, national origin, sex, age, physical handicap, or other factors, except where such factor is a bonified occupational qualification or is required by State and/or Federal Law.

SECTION 34. Advertising.

34.1 The Consultant shall not publicly disseminate any information concerning this Contract without prior written approval from the County, including but not limited to, mentioning the Contract in a press release or other promotional material, identifying the County as a reference, or otherwise linking the Consultant's name and either description of this Contract or the name of the County in any material published, either in print or electronically, to any entity that is not a party this Contract, except potential or actual authorized distributors, dealers, resellers, or service representative.

SECTION 35. Notices.

35.1 All notices, demands, requests for approvals or other communications given by the parties to another in connection with this Contract shall be in writing, and shall be sent by registered or certified mail, postage prepaid, return receipt requested, or overnight delivery service (such as federal express), or courier service or by hand delivery to the office of each party indicated below:

County: Nassau County
Attn: Director of Public Works
45195 Musslewhite Road
Callahan, Florida 32011

Vendor: S2L, Incorporated
Attn: Samuel B. Levin
531 Versailles Drive, Suite 202
Maitland, Florida, 32751

SECTION 36. Attorney's Fees.

36.1 Notwithstanding the provisions of Section 30 hereinabove, in the event of any legal action to enforce the terms of this Contract each party shall bear its own attorney's fees and costs.

SECTION 37. Authority to Bind.

37.1 The Consultant represents and warrants that the Consultant's undersigned representative if executing this Contract of behalf of a partnership, corporation or agency has the authority to bind the Company to the terms of this Contract.

SECTION 38. Conflicting Terms, Representations and No Waiver of Covenants or Conditions.

38.1 In the event of any conflict between the terms of this Contract and the terms of any Exhibits, the terms of this Contract shall prevail.

38.2 All representations, indemnifications, warranties and guaranties made by the Consultant in this Contract, as well as all continuing obligations indicated in this Contract, shall survive final payment and termination or completion of this Contract.

38.3 The failure of either party to insist on strict performance of any covenant or condition herein, or to exercise any option herein contained, shall not be construed as a waiver of such covenant, condition, or option in any other instance.

38.4 The Consultant warrants that any goods provided by the Consultant under this Contract shall be merchantable. All goods provided shall be of good quality within the description given by the County, shall be fit for their ordinary purpose, shall be adequately contained and packaged with the description given by the County, shall conform to the agreed upon specifications, and shall conform to the affirmations of facts made by the Consultant or on the container or label.

SECTION 39. Construction of Contract.

39.1 The parties hereby acknowledge that they have fully reviewed this Contract and any Exhibits and have had the opportunity to consult with legal counsel of their choice, and that this Contract shall not be construed against any party as if they were the drafter of this Contract.

SECTION 40. Headings.

40.1 The section headings and captions of this Contract are for convenience and reference of the parties and in no way define, limit or describe the scope or intent of this Contract or any part thereof.

SECTION 41. Entire Agreement and Execution.

41.1 This Contract, together with any Exhibits, constitutes the entire Contract between the County and the Consultant and supersedes all prior written or oral understandings.

41.2 This Contract may be executed in any number of counterparts; each executed counterpart hereof shall be deemed an original; and all such counterparts, when taken together, shall be deemed to constitute one and the same instrument.

SECTION 42. Change of Laws.

42.1 If there is a change in any state or federal law, regulation or rule or interpretation thereof, which affects this Contract or the activities of either party under this Contract, and either party reasonably believes in good faith that the change will have a substantial adverse effect on that party's rights or obligations under this Contract, then that party may, upon written notice, require the other party to enter into good faith negotiations to renegotiate the terms of this Contract. If the parties are unable to reach an agreement concerning the modification of this Contract within fifteen (15) days after the date of the notice seeking renegotiation, then either

party may terminate this Contract by written notice to the other party. In such event, Consultant shall be paid its compensation for services performed prior to the termination date.

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IN WITNESS WHEREOF, the parties have executed this Contract which shall be deemed an original on the day and year last written below.

**BOARD OF COUNTY COMMISSIONERS
NASSAU COUNTY, FLORIDA**

By: John F. Martin
Its: Chairman
Date: March 20, 2024

Attest as to authenticity of the
Chair's signature:

JOHN A. CRAWFORD
Its: Ex-Officio Clerk

Approved as to form and legality by the
Nassau County Attorney

Denise C. May 2/22/2024
DENISE C. MAY

S2L, INCORPORATED

Samuel B. Levin

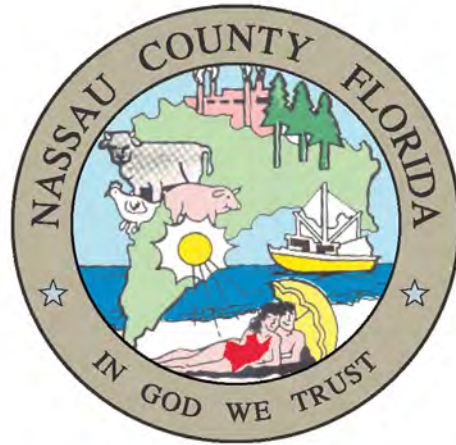
By: Samuel B. Levin
SAMUEL B. LEVIN

Its: PRESIDENT

Date: 2/22/2024

EXHIBIT "A"

**NASSAU COUNTY
FLORIDA**



REQUEST FOR QUALIFICATIONS (RFQ)

**PROFESSIONAL ENGINEERING SERVICES FOR SOLID WASTE LANDFILLS AND OTHER
RELATED ANCILLARY FACILITIES**

RFQ NO. NC23-056-RFQ

PROPOSALS ARE DUE NOT LATER THAN

October 18, 2023 at 10:00 A.M.

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SECTION 1: GENERAL INFORMATION**1.1 INTRODUCTION:**

Nassau County (hereinafter referred to as the "County") is seeking qualifications from firms to provide professional engineering services for solid waste landfills and other related ancillary facilities in accordance with the terms, conditions, and scope of services contained in this Request for Qualifications (RFQ).

1.2 PROCUREMENT METHOD:

This procurement is being conducted in accordance with all applicable provisions of the County Code of Ordinances. The specific method of source selection for the services required in this RFQ is Code Section 1-141, Competitive Purchasing Methods.

1.3 COMPETITIVE PROCESS:

Any firm that meets the requirements specified in this Request for Qualifications may participate in the solicitation process.

1.4 PROPOSAL DOCUMENTS:

This document and subsequent addendums, if any, can be downloaded from PlanetBids, through the Nassau County Procurement webpage <https://www.nassaucountyfl.com/280/Procurement-Contracts-Management> under current bid opportunities.

1.5 PERIOD OF PERFORMANCE:

The term of the agreement, if awarded, shall be for a three-year term with options to renew for two additional one-year terms.

Option to Renew for Two Additional One (1) Year Terms.

Prior to, or upon completion, of that initial term, the County shall have the option to renew this contract for two additional one (1) year periods. Continuation of the contract beyond the initial period, and any option subsequently exercised, is in the sole discretion of the County. The County will give the Contractor written notice of its intent whether to exercise the option no later than thirty (30) days before the end of the Contract's then-current term.

Prior to completion of each exercised contract term, the Firm or County may request an adjustment to hourly rates based on changes in the Consumer Price Index (CPI). Approval of any requests must be in writing, in the same formality as the original agreement.

It is the Consultant's responsibility to request any rate adjustment under this provision. For any adjustment to commence on the first day of any exercised option period, the Consultant's request for adjustment should be submitted 90 calendar days prior to expiration of the then current contract term. The Consultant's adjustment request should not be in excess of the relevant pricing index change, unless approved by County. If no adjustment request is received from the Consultant, the County will assume that the Consultant has agreed that the optional term may be exercised without rate adjustment. Any adjustment request received after the commencement of a new option period may not be considered.

1.6 PUBLIC ENTITY CRIMES:

A person or affiliate who has been placed on the convicted Vendors list following a conviction for public entity crime may not submit a proposal on a contract to provide any goods or services to a public entity, may not submit a proposal on a contract with a public entity for the construction or repair of a public building or public work, may not submit proposals on leases of real property to public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or Proposer under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Florida Statutes, Section 287.017, for Category Two for a period of thirty-six (36) months from the date of being placed on the convicted Vendor list. By signature on this solicitation and confirmation on the attached form, proposer certifies that they are qualified to do business with Nassau County in accordance with Florida Statutes.

1.7 CONFLICT OF INTEREST:

The Firm, by submission of their proposal, warrants that he or she has not employed or retained any company or person, other than a bona fide employee working solely for the Firm to solicit or secure this agreement and that he or she has not paid or agreed to pay any person, company, corporation, individual, or Firm other than a bona fide employee working solely for the Firm any fee, commission, percentage, gift, or other consideration contingent upon or resulting from the award or making of this agreement. For the breach or violation of this provision, the County shall have the right to terminate the agreement without liability and, at its discretion, to deduct from the contract price, or otherwise recover, the full amount of such fee, commission, percentage, gift, or consideration.

1.8 PROHIBITION AGAINST CONSIDERING SOCIAL, POLITICAL, OR IDEOLOGICAL INTERESTS IN GOVERNMENT CONTRACTING:

Vendor is hereby notified that pursuant to Section 287.05701, Florida Statutes, the County may not request documentation of or consider a vendor's social, political, or ideological interests when determining if the vendor is a responsible vendor and may not give preference to a vendor based on the vendor's social, political, or ideological interests.

SECTION 2: SCOPE OF SERVICES**2.1 SCOPE OF SERVICES:**

Professional Services to be provided may include, but are not limited to, all Services (and Items incidental thereto) set forth in compliance with Exhibit "A" Scope of Services.

SECTION 3: INSTRUCTIONS RESPONDENTS**3.1 RFQ SCHEDULE OF EVENTS:**

Listed below are the dates and times by which stated actions will be taken or completed. The County may determine, in its sole discretion, that it is necessary to change any of these dates and times. All listed times are eastern standard times.

Event	Date	Time
RFQ Available on PlanetBids	September 15, 2023	
Deadline for Questions	September 29, 2023	by 4:00 p.m.
County Responses to Questions Posted to PlanetBids	October 11, 2023	
RFQ Responses Due Date/Time and RFQ Opening Date/Time	October 18, 2023	by 10:00 a.m.
Evaluation Committee (Evaluate/Rank Firms)	Week of October 30, 2023	TBD
BOCC Award/Approval	TBD	TBD

Solicitation responses, tabulation and award will be made public in accordance with Florida Statute 119.071 and Florida Statute 286.0113.

3.2 **SUBMISSION OF REQUEST FOR QUALIFICATIONS (RFQ):**

Proposals must be submitted to the County's eProcurement system, [PlanetBids Vendor Portal](#). The County will not accept proposals by facsimile, paper (hand-carry), email, or any other method. **Proposals must be received no later than the date and time specified in Section 3.1.**

3.3. Any proposals received after this date and time will be rejected and considered non-responsive. Proposals will be publicly read and recorded at the office of the Ex-Officio Clerk, Nassau County on date and time specified in Section 3.1. By submitting a response, Firm represents that it has thoroughly examined and become familiar with the work required under this RFQ and that it is capable of performing quality work to achieve the County's objectives, as described under Scope of Services and Firm is prepared to comply with all statutes and regulations applicable to the services to be performed.

- Nassau County reserves the right to accept or reject any and all proposals, or any item or part thereof, or to waive any informalities or irregularities in any proposals.
- Nassau County reserves the right to amend, withdraw or cancel this RFQ at any time without prior notice and it makes no representations that any contract will be awarded to any Firm responding to this RFQ.
- Nassau County reserves the right at its sole discretion to modify this RFQ should Nassau County deem that it is in the best interests to do so.
- Proposals received by Nassau County are public information and will be made available to any person upon request, after the entire proposal evaluation process has been completed. Submitted proposals are not to be copyrighted.

3.4 **POINT OF CONTACT:**

The following person has been designated the Point of Contact for this RFQ:

Thomas O'Brien, Procurement Specialist
Procurement Department
Nassau County
96135 Nassau Place, Suite 2

Yulee, FL 32097
Ph: 904-530-6041

Respondents to this RFQ, or persons acting on their behalf shall not contact any employee or officer of the County concerning any aspect of this RFQ, except in writing to the authorized County Point of Contact identified in this section, between the time RFQ is released and the end of the 72-hour period (excluding Saturdays, Sundays, and County holidays) following the County's posting of notice of recommendation of award. Violation of this provision may be grounds for rejecting a response.

3.5 QUESTIONS/CLARIFICATIONS:

Any ambiguity, conflict, discrepancy, omissions, or other error discovered in this solicitation must be reported immediately and a request made for modifications or clarification. Request for additional information or clarifications must be made in writing and submitted to **NASSAU COUNTY'S EPROCUREMENT SYSTEM, [PLANETBIDS VENDOR PORTAL](#)** by the question deadline identified in Section 3.1.

The County will issue responses to inquiries and any other corrections or amendments it deems necessary in written addenda issued prior to the RFQ opening date. Respondents should not rely on any representations, statements, or explanations other than those made in this solicitation or in any addendum to this solicitation. Where there appears to be a conflict between the RFQ and any addenda issued, the last addendum issued will prevail.

It is the Respondent's responsibility to be sure all addenda were received. The Respondent should verify with the designated contact person prior to submitting a proposal that all addenda have been received. Respondents are required to acknowledge the number of addenda received as part of their submission of the proposal. Respondents shall submit the Addendum Acknowledgment form attached hereto as Form "A."

3.6 VERBAL INSTRUCTIONS:

No negotiations, decisions, or actions shall be initiated or executed by the Proposer as a result of any discussions with any County officer or employee. Only those written communications that are issued from the County's Procurement Department shall be considered as duly authorized expressions on behalf of the County.

ALL QUESTIONS FROM RESPONDENTS MUST BE ADDRESSED IN WRITING AND SUBMITTED TO THE NASSAU COUNTY'S EPROCUREMENT SYSTEM, [PLANETBIDS VENDOR PORTAL](#).

3.7 PRE-QUALIFICATIONS MEETING: Not Applicable to this RFQ.

3.8 PROPOSALS AND PRESENTATION COST: The County will not be liable in any way for any cost incurred by the Respondent in the preparation of their proposal in response to this RFQ nor for the presentation of their proposals or participation in any discussions or negotiations.

3.9 INSURANCE REQUIREMENTS: Respondents to this RFQ shall submit proof of Commercial General Liability, Commercial Auto Liability, Professional Liability, and Worker's Compensation insurance coverage that meets or exceeds the insurance requirement listed in Exhibit "B."

Proof of Insurance must be in the form of a certificate of insurance or a copy of policy declarations page.

- 3.10 PROPOSALS AND PRESENTATION COST:** The County will not be liable in any way for any cost incurred by the Respondent in the preparation of their proposal in response to this RFQ nor for the presentation of their proposals or participation in any discussions or negotiations.

SECTION 4: PROPOSAL CONTENT

- 4.1 RESPONSE FORMAT:** To facilitate and expedite review, the County asks that all Respondents follow the response format outlined below. Failure to submit your response in the format requested may result in the reduction of your overall evaluation score. To assist you in preparing your response, the County's selection procedures are also described herein. Please abide by all requirements set forth to avoid any risk of disqualification.

TAB 1 – Cover Letter

Provide a cover letter no longer than two (2) pages in length, signed by an authorized representative of the firm that can legally bind the company and provide, his/her title, address, phone number, and email address. Provide a positive commitment to perform the required scope of services. Respondent should also provide the primary contact person for this solicitation including his/her title, phone number, and email address. A table of contents should follow the cover letter.

TAB 2 – Table of Contents

Include a clear identification of the material included in the proposal by page number.

TAB 3 – Team Organization, Experience and Qualifications

The Response shall provide information as to the qualifications and experience of all executives, managerial, legal, and professional personnel, including resumes citing experience with similar projects. Proposers should include:

- a. Provide a brief description of your firm's organization, structure and philosophy.
- b. Provide firm's years of experience and applicable project experience.
- c. Project Team. Identify and include qualifications and experience of individuals (include name, contact information, and services the individuals will provide) List any subcontractors that may be used as well.
- d. List any innovative technology-based capacities and examples, including but not limited to geospatial analysis tools, 3D modeling tools, publishing software, interactive online platforms, etc. that was utilized on prior projects.
- e. Knowledge of and compliance with state and local laws.

TAB 4 – RFQ Understanding, Approach, and Schedule

Provide a comprehensive narrative, outline, and/or graph demonstrating the firm's understanding and approach to accomplishing various projects outlined in the Section 2 - Scope of Services.

Describe the firm's approach in developing cost estimates for each project and provide information regarding any proposed innovative concepts that may enhance value and quality, any favorable cost containment approaches or additional or alternative ideas that may be successful if implemented by Nassau County.

TAB 5 – References

Provide a minimum of three (3) examples of similar awards with applicable reference information. References should include the following information:

- Client name, address **AND phone, numbers, and e-mail addresses**
- Description of all services provided
- Performance period
- Total contract value

The list of references for which similar work has been performed shall be included and the list shall include all similar contracts performed by the Respondent within the past five years. The evaluators will randomly select at least three of these references, but the evaluators reserve the right to contact all the references listed, if information from the three references contacted warrant further inquiry. The failure to list all similar contracts in the specified period may result in the rejection of the Respondent's proposal. The evaluators may check all public sources to determine whether Respondent has listed all contracts for similar work within the designated period. If the evaluators determine that references for other public contracts for similar contracts were not listed, the evaluators may contact the public entities to make inquiry into Respondent's performance of those contracts and the information obtained may be considered in evaluating Respondent's proposal.

TAB 6 – CURRENT WORKLOAD

In this section, list your firm's current projects/workload and schedules for completion. and whether you are the prime or sub-consultant.

TAB 7 – TECHNOLOGY

Respondents should use this section to list any innovative strategies and creative processes that is used as a tool for successful project planning.

TAB 8 – Cost

This solicitation is being issued in accordance Florida Statutes Chapter 287.055 "Consultants' Competitive Negotiation Act", and therefore price cannot and will not be a determining factor in the selection of the successful firm. The County will request hourly rates once the most qualified firm is selected. The County reserves the right to negotiate hourly rates. **DO NOT SUBMIT HOURLY RATES OR ANY PRICING DETAIL WITH RFQ RESPONSE.** The selected firm will be asked to provide hourly rates during the negotiation phase of the solicitation process. Examples of disciplines required are attached hereto as Attachment III.

TAB 9 – Attachments/Administrative Information

All Attachment/Forms required by the RFQ shall be fully completed and executed by an authorized representative that can legally bind the Firm. Respondent shall submit all information in the above order. Failure to do so may diminish your score.

SECTION 5: PROPOSAL EVALUATION AND SELECTION CRITERIA

- 5.1 PROPOSAL EVALUATION:** The County will review all qualified responses to this RFQ and select the proposal that is determined to be in the best public interest in accordance with the intent of this RFQ. All proposals will first be screened for adherence to the requirements of this RFQ. The County will not consider non-responsive proposals. A non-responsive proposal is a proposal that was not timely submitted or fails to meet the material terms and conditions of this RFQ as determined by the County.

The County reserves the right to waive any informality in any proposal and to accept any proposal which it considers to be in the best public interest, and to reject any or all proposals. **The decision of the County shall be final.**

Solicitation responses, tabulation and award will be made public in accordance with Florida Statute 119.071 and Florida Statute 286.0113.

- 5.2 EVALUATION/SELECTION COMMITTEE:** The Procurement Director will facilitate the evaluation process. The evaluation/selection committee will be responsible for evaluating and ranking each Firm based upon the proposal submitted.
- 5.3** The Evaluation/Selection Committee shall evaluate the responses to the RFQ and rank the Firm's based on the evaluation criteria contained herein. The Committee may select a short-list of up to five (5) top-ranked Firms.
- 5.4 EVALUATION CRITERIA:** A 100-point formula scoring system will be utilized based upon the following criteria:

Evaluation Factor	Maximum Points
Corporate, Background and Experience, References	25
Team Organization, Experience and Qualifications,	30
RFQ Understanding, Approach, and Schedule	25
Technology	20

- 5.5** The County reserves the right to make selections based on the submittals only or to request oral presentations or questions/answer sessions with the top ranked firms before determining the final ranking.
- 5.6** If the County requests oral presentations from the top ranked firms, a separate evaluation process will be conducted. Any scores from the initial evaluation process for short-ranking purposes will not be used or added to the oral presentation scoring. The evaluation criteria and scoring that will be used for the ranking of the oral presentations will be provided prior to the presentation date.

SECTION 6. CONTRACT PROCEDURES

- 6.1 PRESENTATION TO THE BOARD:**

The County's Planning Department shall submit an agenda item for presentation to the Nassau County Board of County Commissioners requesting consideration and approval to

award based on the recommendation of the evaluation committee according to the overall ranking and authorization to award a contract with the top-ranked firm.

SECTION 7. STANDARD CONTRACT TERMS FOR SERVICES

The contract that the County intends to use for award is attached as Attachment "I". The successful Firm will be required to enter into an agreement which will include the requirements of this RFQ as well as the terms and conditions of the draft contract, Attachment "I". Any exceptions to the standard terms and conditions must be stated in the proposal. Any submission of a proposal without objection to the standard terms and conditions indicates understanding and intention to comply with the standard terms and conditions. If there is a term or condition that the firm intends to negotiate, it must be stated in the proposal. The successful firm will not be entitled to any changes or modifications unless they were first stated in the proposal. The County reserves the right to reject any proposal(s) containing exceptions or modifications to the standard terms and conditions. The County may revise the stated standard terms and conditions prior to execution.

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EXHIBIT "A"

SCOPE OF SERVICES

Scope

Nassau County is seeking Engineering firms for Independent Consulting and Engineering Services as related to the needs of the Nassau County Solid Waste Department. Work to be performed by the Consultant shall be on a negotiated, written assignment-by-assignment basis and shall include a "not to exceed" budget amount for the assignment. Work Authorizations shall be approved by the Nassau County Board of County Commissioners or their Designee. The following scope of services outlined herein is the minimum scope of work to be provided:

1. Landfill Gas Operations and Maintenance – Provide all monitoring and adjustments for the Landfill gas collection and control system to determine compliance with Title V air quality regulations and the NSPS and Greenhouse Gas (GHG) Reporting rules. This includes all monitoring as it relates to the site's gas system permits, such as weekly GHG monitoring, quarterly surface methane monitoring, routine maintenance and repair of the gas wells and flare system, emergency response services, non-routine operation and maintenance and repair services, and flare testing, inspection, and service.
2. Permit Assistance – Assist the County in the preparation and submittal of permit applications and the renewal of environmental permits required for Long-Term Care including solid waste permits, NPDES, Title V permit, and any other permits required for the facilities.
3. Compliance Monitoring – Assist the County in the preparation and submittal of regulatory compliance reports, including Title V Annual Emissions Report, NSPS Semi-Annual Reports, GHG Report, Statement of Compliance, Annual operating Report, Visible Emissions Report, and any other reporting as required by the permits.
4. Inward Gradient Monitoring and Maintenance – Assist the County in conducting environmental monitoring programs including evaluation and analysis of results, FDEP report generation and making recommendations. This work includes monthly monitoring of the gradient system and evaluating the gradient monitoring program including hydrology with special consideration to hydrogeological influences and the negative gradient required on the site by permit conditions. Assist the County with the maintenance of the gradient system. Work may also include assessment of the slurry wall.
5. System Improvements – Analyze and recommend improvements to and/or adding existing facilities and programs including the preparations of construction and operating cost estimates. Assist the County in evaluating new technologies or systems that may be applicable to the County's solid waste system.
6. Landfill Post Closure – Evaluate and update the long-term care programs including the preparation of permit applications, as applicable.
7. Stormwater Pollution Prevention Plan – Assist the County with updating and maintaining the Stormwater Pollution Prevention Plan (SWPPP) and the Spill Prevention Plan (SPP) and any necessary training.
8. Financial Assurance – Provide post closure and long-term care cost estimates and assist the County in meeting financial responsibility requirements.
9. Coordination – The Consultant will be required to coordinate with other contracted Professional Service Providers, as necessary, for monitoring, reporting, or permitting

requirements;

10. Miscellaneous Services

- Regulatory Issues – Monitor EPA and FDEP rulemaking, as well as state and federal legislative initiatives and advise the County of the affect of legislation and/or rule changes on its facilities and operations.
- Survey – Assist the County in conducting surveys as required for landfill operation and permitting as well as to support other activities and projects.
- Meetings and Presentations – Assist the County in preparing for, and participating in meetings and presentations to local government, citizen groups and regulatory agencies.
- Engineering support for Bryceville Landfill, as requested.

11. Ad Hoc Engineering – Recommendation, design, and permitting support for the facilities and systems, as may be required, including landfill closure areas, stormwater facilities, leachate treatment system, landfill gas systems, Convenience facility, roadways, and monitoring systems. Work may include design, specifications, and assistance during bidding, and construction services.

12. Groundwater and Surface Water Monitoring Services for the West Nassau and Lofton Creek Landfill- Completion of regularly occurring, semi-annual groundwater and surface water monitoring requirements at each of the two landfills in accordance with the requirements of each landfill's WQMP issued by the FDEP. Primary service components include:

- Collection of groundwater/surface water samples, field sample testing and recording;
- Provision of a qualified analytical laboratory for sample analysis and reporting, and;
- Preparation of a written Semi-Annual Monitoring Report in accordance with, and addressing each of the reporting requirement of, each landfill WQMP and electronic submission of the report to the FDEP.
- Additional groundwater/surface water monitoring as requested.

13. The Consultant shall also provide services not otherwise described, or any other tasks associated with the County's solid waste permits and operations, which may be required by the County during the course of the Agreement.

EXHIBIT "B"
GENERAL INFORMATION AND MINIMUM INSURANCE REQUIREMENTS

COMMERCIAL GENERAL LIABILITY INSURANCE

The Vendor/Contractor shall purchase and maintain at the Contractor's expense Commercial General Liability insurance coverage (ISO or comparable Occurrence Form) for the life of this Contract. Modified Occurrence or Claims Made forms are not acceptable.

The Limits of this insurance shall not be less than the following limits:

Each Occurrence Limit	\$1,000,000
Personal & Advertising Injury Limit	\$1,000,000
Products & Completed Operations Aggregate Limit	\$2,000,000
General Aggregate Limit (other than Products & Completed Operations) Applies Per Project	\$2,000,000

General liability coverage shall continue to apply to "bodily injury" and to "property damage" occurring after all work on the Site of the covered operations to be performed by or on behalf of the additional insureds has been completed and shall continue after that portion of "your work" out of which the injury or damage arises has been put to its intended use.

WORKERS' COMPENSATION AND EMPLOYER'S LIABILITY INSURANCE

The Vendor/Contractor shall purchase and maintain at the Contractor's expense Workers' Compensation and Employer's Liability insurance coverage for the life of this Contract.

The Limits of this insurance shall not be less than the following limits:

<u>Part One</u> – Workers' Compensation Insurance – Unlimited Statutory Benefits as provided in the Florida Statutes and	
<u>Part Two</u> – Employer's Liability Insurance	
Bodily Injury By Accident	\$500,000 Each Accident
Bodily Injury By Disease	\$500,000 Policy Limit
Bodily Injury By Disease	\$500,000 Each Employee

*If leased employees are used, policy must include an Alternate Employer's Endorsement

AUTOMOBILE LIABILITY INSURANCE

The Vendor/Contractor shall purchase and maintain at the Contractor's expense Automobile Liability insurance coverage for the life of this Contract.

The Limits of this insurance shall not be less than the following limits:

Combined Single Limit – Each Accident	\$1,000,000
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Covered Automobiles shall include any auto owned or operated by the insured Vendor/Contractor, including autos which are leased, hired, rented or borrowed, including autos owned by their employees which are used in connection with the business of the respective Vendor/Contractor.

UMBRELLA (EXCESS) LIABILITY INSURANCE

The Vendor/Contractors shall purchase and maintain at the Subcontractor's expense Excess Liability (Umbrella Form) insurance coverage for the life of this Subcontract.

The Limits of this insurance shall not be less than the following limits:

Each Occurrence Limit	\$2,000,000
Aggregate Limit	\$2,000,000

ENVIRONMENTAL LIABILITY INSURANCE

This additional coverage will be required by any Contractor performing environmental and/or other investigations involving excavation, drilling, or other site disturbance activities.

The Contractor shall purchase and maintain at the Contractor's expense Environmental Liability insurance (Contractors Pollution Liability) coverage for the life of this Contract.

The Limits of insurance shall not be less than the following limits: \$1,000,000 Each Loss/Aggregate

Such Coverage will include bodily injury, sickness, and disease, mental anguish or shock sustained by any person, including death; property damage including physical injury to destruction of tangible property including resulting loss of use thereof, cleanup costs, and the loss of use of tangible property that has not been physically injured or destroyed; defense including costs charges and expenses incurred in the investigation, adjustment or defense of claims for such compensatory damages; coverage for losses caused by pollution conditions that arises from the operations of the contractor including transportation.

PROFESSIONAL LIABILITY (ERRORS & OMISSIONS)

This additional coverage will be required for all projects involving consultants, engineering services, architectural or design/build projects, security firms, independent testing firms and similar exposures.

The Contractor/Vendor shall purchase and maintain at the Contractor/Vendor's expense Professional Liability insurance coverage for the life of this Contract.

If the contract includes a requirement for Professional Liability or Errors and Omissions insurance, the minimum amount of such insurance shall be as follows:

Each Occurrence/Annual Aggregate – Project Specific Form	\$1,000,000
OR	
Each Occurrence/Annual Aggregate – Non Project Specific Form	\$2,000,000

Design Professional Liability coverage will be provided on an Occurrence Form or a Claims Made Form with a retroactive date to at least the first date of this Agreement. If provided on a Claims Made Form, the coverages must respond to all claims reported within three years following the period for which coverage is required and which would have been covered had the coverage been on an occurrence basis.

Vendor/Contractor shall require each of his Subcontractors to likewise purchase and maintain at their expense Commercial General Liability insurance, Workers' Compensation, Employer's Liability, Auto Liability, Umbrella Liability & Environmental Liability insurance coverage meeting the same limit and requirements as the Contractors insurance.

Certificates of Insurance and the insurance policies required for this Agreement shall contain –

- **Endorsement that coverage afforded under the policies will not be cancelled or allowed to expire until at least thirty (30) days prior written notice has been given to Nassau County Board of County Commissioners.**
 - **Nassau County Board of County Commissioners must be named as an Additional Insured and endorsed onto the Commercial General Liability (CGL), Auto Liability and Umbrella Liability policy (ies).**
 - **CGL policy for construction related contracts –**
 - **Additional Insured Endorsement must include Ongoing and Completed**
 - **CGL policy shall not be endorsed with Contractual Liability Limitation Endorsement or Amendment of Insured Contract Definition**
 - **CGL policy shall include broad form contractual liability coverage for the Contractors covenants to and indemnification of the Authority under this Contract**

- **Provision under General Liability, Auto Liability and Workers' Compensation to include a Waiver of Subrogation clause in favor of Nassau County Board of County Commissioners.**
- **Provision that policies, except Workers' Compensation, are primary and noncontributory.**

All Insurers must be authorized to transact insurance business in the State of Florida as provided by Florida Statute 624.09(1) and the most recent Rating Classification/Financial Category of the insurer as published in the latest edition of "Best's Key Rating Guide" (Property-Casualty) must be at least A- or above.

All of the above referenced Insurance coverage is required to remain in force for the duration of this Agreement and for the duration of the warranty period. Accordingly, at the time of submission of final application for payment, Vendor/Contractor shall submit an additional Certificate of Insurance evidencing continuation of such coverage.

If the Vendor/Contractor fails to procure, maintain or pay for the required insurance, Nassau County Board of County Commissioners shall have the right (but not the obligation) to secure same in the name of and for the account of Vendor/Contractor, in which event, Vendor/Contractor shall pay the cost thereof and shall furnish upon demand, all information required to procure such insurance. Nassau County Board of County Commissioners shall have the right to back-charge Vendor/Contractor for the cost of procuring such insurance. The failure of Nassau County Board of County Commissioners to demand certificates of insurance and endorsements evidencing the required insurance or to identify any deficiency in Vendor/Contractors coverage based on the evidence of insurance provided by the Vendor/Contractor shall not be construed as a waiver by Nassau County Board of County Commissioners of Vendor/Contractor's obligation to procure, maintain and pay for required insurance.

The insurance requirements set forth herein shall in no way limit Vendor/Contractors liability arising out of the work performed under the Agreement or related activities. The inclusions, coverage and limits set forth herein are minimum inclusion, coverage and limits. The required minimum policy limits set forth shall not be construed as a limitation of Vendor/Contractor's right under any policy with higher limits, and no policy maintained by the Vendor/Vendor/Contractor shall be construed as limiting the type, quality or quantity of insurance coverage that Vendor/Vendor/Contractor should maintain. Vendor/Vendor/Contractor shall be responsible for determining appropriate inclusions, coverage and limits, which may be in excess of the minimum requirements set forth herein.

If the insurance of any Vendor/Vendor/Contractor or any Sub-Vendor/Vendor/Contractor contains deductible(s), penalty(ies) or self-insured retention(s), the Vendor/Vendor/Contractor or Sub-Vendor/Vendor/Contractor whose insurance contains such provision(s) shall be solely responsible for payment of such deductible(s), penalty(ies) or self-insured retention(s).

The failure of Vendor/Vendor/Contractor to fully and strictly comply at all times with the insurance requirements set forth herein shall be deemed a material breach of the Agreement.

EXHIBIT "C" - PERMITS

**FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION**

NORTHEAST DISTRICT
8800 BAYMEADOWS WAY WEST, SUITE 100
JACKSONVILLE, FLORIDA 32256

RICK SCOTT
GOVERNOR

HERSCHEL T. VINYARD JR.
SECRETARY

March 15, 2013

Transmitted via email to: sherring@nassaucountyfl.com

In the Matter of a
Permit Modification for:

DEP File No. 66724-007
Facility WACS I.D. No. 37139
Bryceville Landfill
Nassau County - Solid Waste

J. Scott Herring, P.E.
Nassau County Public Works Director
46026 Landfill Road
Callahan, Florida 32011

NOTICE OF PERMIT MODIFICATION

Enclosed is Florida Department of Environmental Protection (DEP or Department) Permit Modification Number 66724-007-MM of Permit Number 66724-006-SF to reduce the monitoring requirements of the closed Bryceville Landfill during its long-term care period. This Modification is being issued under the Northeast District Solid Waste Section's cost reduction initiative, and is pursuant to Chapter 403, Florida Statutes (F.S.) and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-520, 62-550, and 62-701, to incorporate the rescission of the Facility's gas monitoring requirements and a reduction of its groundwater monitoring requirements.

This Notice of Modification does not alter the expiration date, the General Conditions, or the Specific Conditions, with the exception of the revision of Specific Condition E of Section 2, Condition 1.e of Appendix 3, and Appendix 3.3.

This Notice of Permit Modification, including Attachments A and Appendix 3.3, must be included as part of the original permit.

This modification is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with the below paragraphs, or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition and conforms to F.A.C. Rule 62-103.070, or unless all parties reach a written agreement as an alternate remedy

Bryceville Landfill
March 15, 2013
Page 3 of 3

General Counsel, 3900 Commonwealth Boulevard, MS #35, Tallahassee, Florida 32399; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date the Final Order is filed with the Clerk of the Department.

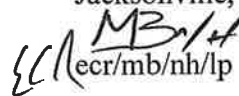
Mediation is not available for this permit modification.

Executed in Duval County, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION




Michael J. Fitzsimmons
Waste Program Administrator
Northeast District
8800 Baymeadows Way West, Suite 100
Jacksonville, Florida 32256


ecr/mb/nh/lp

Attachments

ec: Becky Hiers, P.E. – Nassau County Engineering Services, BHiers@NassauCountyFL.com
Solid Waste Financial Assurance, DEP, Solid.Waste.Financial.Coordinator@dep.state.fl.us
Neil Hornick, DEP, Neil.Hornick@dep.state.fl.us

FILING AND ACKNOWLEDGMENT
Filed on this date, pursuant to Section 120.52, F.S., with the designated Department Clerk, receipt of which is hereby acknowledged.

March 15, 2013

APPENDIX 3.3

Semi-Annual Groundwater Parameters

FIELD PARAMETERS

Static water levels
(prior to purging)
Specific conductivity
pH
Dissolved Oxygen (DO)
Turbidity
Colors and Sheens (by observation)
Temperature

SPECIFIC SAMPLING PARAMETERS

Field Parameters, Iron, TDS & TOC to be sampled from MW-1S [Background], MW-2S, MW-2I, MW-3S, MW-3I & MW-4S.

Lead only sampled in MW-1S [Background], MW-2S, MW-2I, MW-3S & MW-3I.

Arsenic only sampled in MW-1S [Background], MW-4D & MW-5I.

Cadmium only sampled in MW-1S [Background] & MW-2I.



**FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION**

NORTHEAST DISTRICT
8800 BAYMEADOWS WAY WEST, SUITE 100
JACKSONVILLE, FLORIDA 32256

RICK SCOTT
GOVERNOR

JENNIFER CARROLL
LT. GOVERNOR

HERSCHEL T. VINYARD JR.
SECRETARY

December 20, 2012

In the Matter of an
Application for Permit by:

DEP File No.: 64999-007
Facility WACS ID No.: 37138
Nassau County – Solid Waste

Nassau County Board of County Commissioners
96135 Nassau Place, Suite 1
Yulee, Florida 32097

NOTICE OF PERMIT MODIFICATION

Enclosed is the State of Florida Department of Environmental Protection (Department or DEP) Permit Modification Number 0064999-007-MM of Permit Number 0064999-006-SF to reduce the monitoring requirements of the closed Lofton Creek Class I Landfill during its long-term care period. This Modified Permit is being issued under the Northeast District Solid Waste Section's cost reduction initiative and is pursuant to Chapter 403, Florida Statutes (F.S.) and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-520, 62-550, and 62-701, to incorporate a reduction in the Facility's gas and groundwater monitoring requirements.

To make your consultant aware of these changes and for your convenience, he is being copied on this Modification.

This Notice of Permit Modification does not alter the expiration date, the General Conditions, or the Specific Conditions, with the exception of the elimination of Specific Condition E.3, the revision of paragraph 1.e in APPENDIX 3, and the revision of APPENDIX 3.3 of the Permit. The elimination of Specific Condition E.3 removes the gas monitoring requirement, while the other revisions reduce the groundwater monitoring requirements.

This modification is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with the below paragraphs, or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition and conforms to Rule 62-103.070, F.A.C., or unless all parties reach a written agreement as an alternate remedy under Section 120.573, F.S.,

Nassau County Board of County Commissioners
December 20, 2012
Page 2

before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

A person whose substantial interests are affected by this permit may petition for an administrative proceeding (hearing) in accordance with Section 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, MS #35, Tallahassee, Florida 32399, within 14 days of receipt of this Permit. The Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing.

Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, F.S.

The Petition shall contain the following information:

- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, DEP Permit File Number(s) and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of DEP's action or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by DEP's action or proposed action;
- (d) A statement of the material facts disputed by Petitioner, if any;
- (e) A statement of facts which petitioner contends warrants reversal or modification of DEP's action or proposed action;
- (f) A statement of which rules or statutes petitioner contends require reversal or modification of DEP's action or proposed action; and
- (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants DEP to take with respect to DEP's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, DEP's final action may be different from the position taken by it in this permit. Persons whose substantial interests will be affected by any decision of DEP with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this notice in the Office of General Counsel at the above address of DEP. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section

Nassau County Board of County Commissioners
December 20, 2012
Page 3

120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

When the Order (Modified Permit) is final, any party to the Order has the right to seek judicial review of the Order pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 3900 Commonwealth Boulevard, MS #35, Tallahassee, Florida 32399; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date the Final Order is filed with the Clerk of the Department.

Mediation is not available for this permit modification.

Executed in Duval County, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION



Michael J. Fitzsimmons
Waste Program Administrator
Northeast District
8800 Baymeadows Way West, Suite 100
Jacksonville, Florida 32256-7590

SLR MB n/h
ecr:mb:nh:lp

Copies furnished to:

J. Scott Herring, P.E., Nassau County Public Works Director, sherring@nassaucountyfl.com
Omar Smith, P.E., S2Li, Inc., osmith@s2li.com
Solid Waste Financial Coordinator, FDEP, Solid.Waste.Financial.Coordinator@dep.state.fl.us
Neil Hornick, FDEP, Neil.Hornick@dep.state.fl.us
Jeffrey Schroer, FDEP, Jeffrey.Schroer@dep.state.fl.us



**FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION**

NORTHEAST DISTRICT
8800 BAYMEADOWS WAY WEST, SUITE 100
JACKSONVILLE, FLORIDA 32256

RICK SCOTT
GOVERNOR

JENNIFER CARROLL
LT. GOVERNOR

HERSCHEL T. VINYARD JR.
SECRETARY

Permit Issued to:

Nassau County Board of County Commissioners
96135 Nassau Place, Suite 1
Yulee, Florida 32097
904.491.7330

Facility WACS ID No.: 37138
Facility Name: Lofton Creek Class I Landfill (Closed)
Facility Address: 2.5 miles east of Yulee on the south side of State Road AIA
Lofton Creek, Nassau County, Florida

Contact Person:

J. Scott Herring, P.E., Nassau County Public Works Director
46026 Landfill Road
Callahan, Florida 32011
sherring@nassaucountyfl.com
904.491.7330

Solid Waste Long-Term Care Renewal Permit – Class I Landfill
Permit No.: 0064999-006-SF (which includes File No. 0064999-006)
Permit Modification No.: 64999-007-MM
Replaces Permit No.: 0064999-001-SF

Permit Issued: February 15, 2012
Permit Modification Issued: December 20, 2012
Permit Renewal Application Due Date: [see item 2.A.3]
Permit Expires: February 15, 2018

Permitting Authority
Florida Department of Environmental Protection
Northeast District Office
8800 Baymeadows Way West, Suite 100
Jacksonville, Florida 32256
Phone: 904.256.1700
Fax: 904.256.1587

PERMITTEE NAME: Nassau County
Board of County Commissioners
FACILITY NAME: Lofton Creek Class I Landfill

Permit No.: 64999-006-SF
Permit Modification No.: 64999-007-MM
Facility WACS ID: 37138

SECTION 1 - SUMMARY INFORMATION

A. Authorization

The Permittee is hereby authorized to monitor and maintain the Facility described below in accordance with the specific and general conditions of this permit and any documents attached to this permit or specifically referenced in this permit and made a part of this permit.

This solid waste long-term care permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.) and Florida Administrative Code (F.A.C.) Chapters 62-4 and 62-701.

This permit does not relieve the Permittee from complying with any other appropriate local zoning or land use ordinances or with any other laws, rules or ordinances. Receipt of any permits from the Florida Department of Environmental Protection (Department) does not relieve the applicant from obtaining other federal, state, and local permits and/or modifications required by law, including those from other Sections within the Department or of the Water Management District.

B. Facility Location

Lofton Creek Landfill is located approximately 2.5 miles east of Yulee on the south side of State Road AIA at latitude/longitude N30°37'30"/W82°33'40", in Nassau County, Florida.

C. Facility Description

Lofton Creek Class I Landfill (Facility) is a closed landfill that began its 20-year long-term care period on August 11, 1997. The total site area is 62 acres of which 52± acres are capped. The final cover system consists of from top to bottom: a six-inch top soil layer; a 12-inch thick drainage layer; a 40-mil High Density Polyethylene synthetic geomembrane, a six-inch soil clay layer with a permeability of 1×10^{-7} cm/sec or less, and intermediate cover. The Facility design includes Groundwater and Surface Water Monitoring Systems, and a Stormwater Management System.

D. Appendices Made Part of This Permit

APPENDIX 1 - General Conditions

APPENDIX 2 – Approved Application Documents

PERMITTEE NAME: Nassau County
Board of County Commissioners
FACILITY NAME: Lofton Creek Class I Landfill

Permit No.: 64999-006-SF
Permit Modification No.: 64999-007-MM
Facility WACS ID: 37138

APPENDIX 3 – Water Quality Monitoring Plan

APPENDIX 3.1 – Monitoring Well and Surface Water Sample Locations

APPENDIX 3.2 – Initial Background Groundwater Parameters

APPENDIX 3.3 – Semi-annual Groundwater Parameters

APPENDIX 3.4 – Guidance for Submitting Electronic Water Quality Data to the Solid Waste Program

APPENDIX 3.5 - Initial Background and Semi-annual Surface Water Parameters

APPENDIX 4.1 - Gas Monitoring Well Locations

APPENDIX 4.2 - Passive Gas Venting Well Locations

APPENDIX 5 – Post-Closure Inspection Form

SECTION 2 - SPECIFIC CONDITIONS

A. Administrative Requirements

1. Documents Part of This Permit. The permit application as finally revised, replaced or amended in response to the Department's Request(s) for Additional Information are contained in the Department's files and are made a part of this permit. Those documents that make up the complete permit application are listed in APPENDIX 2.
2. Permit Modification. Any change to construction, operation, monitoring, or closure requirements of this permit may require a modification to this permit, in accordance with the provisions of Rule 62-701.320(4) F.A.C.
3. Permit Renewal. If the Permittee wishes to renew the permit, or if the long-term care period is extended such that a permit renewal is required, a permit renewal application shall be submitted at least 61 days prior to the expiration of this permit.
4. Transfer of Permit or Name Change. In accordance with Rule 62-701.320(11) F.A.C., the Department must be notified in writing within 30 days: (1) of any sale or

PERMITTEE NAME: Nassau County
Board of County Commissioners
FACILITY NAME: Lofton Creek Class I Landfill

Permit No.: 64999-006-SF
Permit Modification No.: 64999-007-MM
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conveyance of the Facility; (2) if a new or different person takes ownership or control of the Facility; or (3) if the Facility name is changed.

B. Construction Requirements

Construction requirements are not applicable to this Permit.

C. Operation Requirements

Operation requirements are not applicable to this Permit.

D. Water Quality Monitoring Requirements

1. Water Quality Monitoring Plan. The Water Quality Monitoring Plan for this permit is included in APPENDIX 3.

E. Gas Management System Requirements

1. Construction Requirements. All construction shall be done in accordance with the approved gas management system design, drawings, and specifications. The Department shall be notified before any changes, other than minor deviations, to the approved design are implemented in order to determine whether a permit modification is required.

- (a) Locations of soil monitoring probes are specified in APPENDIX 4.1.
- (b) Locations of gas venting wells are specified in APPENDIX 4.2.

2. Operational Requirements. Gas controls shall be operated and maintained in accordance with the Post-Closure Care Plan.

3. Monitoring Requirements. The methane gas monitoring requirement has been eliminated.

F. Closure Requirements

Closure requirements are not applicable to this Permit.

G. Long Term Care Requirements

1. Long-Term Care Period. The Permittee shall continue to monitor and maintain the integrity and effectiveness of the final cover as well as other appurtenances of the Facility, control erosion, fill subsidences, comply with the ground water monitoring

PERMITTEE NAME: Nassau County
Board of County Commissioners
FACILITY NAME: Lofton Creek Class I Landfill

Permit No.: 64999-006-SF
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plan, and maintain the stormwater system, in accordance with an approved Post-Closure Care Plan. A Post-Closure Inspection Form is presented as Table A-1 of APPENDIX 5 and shall be used for documenting the results of inspections. The long-term care period is scheduled to end on August 11, 2017.

2. Post-Closure Care Plan. A copy of the approved Post-Closure Care Plan, including the operating record as defined in Rule 62-701.500(3) F.A.C., shall be kept at the West Nassau Landfill's offices and shall be accessible to landfill operators.

3. Stabilization Report. By June 11, 2017, the Permittee shall submit a report to the Department that addresses stabilization of the landfill. The submittal shall include the technical report required in Rule 62-701.510(9)(b) F.A.C., and shall also address subsidence, barrier layer effectiveness, storm water management, and gas production and management.

4. Contingency Plan and Notification of Emergencies. The Permittee shall notify the Department in accordance with the approved Post-Closure Care Plan. Notification shall be made to the Solid Waste Section of Department's Northeast District Office at 904.256.1700. During non-regular business hours, the notification shall be made to Department's 24-hour emergency phone number 800.320.0519.

5. Final Certification. Following completion of the long-term care period for each solid waste management unit, the owner or operator shall submit to the Department a certification, signed and sealed by a professional engineer, verifying that long-term care has been completed in accordance with the closure plan has been placed in the operating record.

H. Financial Assurance and Cost Estimates

1. Financial Assurance Mechanism. The Permittee shall maintain, in good standing, the financial assurance mechanisms established to demonstrate proof of financial assurance.

2. Annual Cost Estimate Adjustments. The Permittee shall annually adjust the long-term care cost estimate(s) for inflation using Form 62-701.900(28). Adjustments shall be made in accordance with Rule 62-701.630(4) F.A.C. and, as applicable, 40 CFR Parts 264.142(a) and 264.144(a). An owner or operator using a letter of credit, guarantee bond, performance bond, financial test, corporate guarantee, trust fund or insurance shall submit the adjusted cost estimate(s) between January 1 and March 1. An owner or operator using an escrow account shall submit the adjusted estimate(s) between July 1

PERMITTEE NAME: Nassau County
Board of County Commissioners
FACILITY NAME: Lofton Creek Class I Landfill

Permit No.: 64999-006-SF
Permit Modification No.: 64999-007-MM
Facility WACS ID: 37138

and September 1. All submittals in response to this specific condition shall be sent to the Northeast District Office and to:

Florida Department of Environmental Protection
Financial Coordinator - Solid Waste Section
2600 Blair Stone Road, MS 4565
Tallahassee, Florida 32399-2400

Executed in Duval County, Florida

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION



Michael J. Fitzsimmons
Waste Program Administrator

FILING AND ACKNOWLEDGMENT
Filed on this date, pursuant to Section 120.52, F.S., with the designated Department Clerk, receipt of which is hereby acknowledged.
Linda Parker
December 20, 2012

APPENDIX 3
Water Quality Monitoring Plan

1. **Groundwater Monitoring.** In accordance with Rules 62-701.510 and 62-520.600, F.A.C., the Permittee shall install, place into operation, and maintain a groundwater quality monitoring system.
- a. **General Requirements.** The Permittee shall construct new wells, operate and maintain the groundwater monitoring system, and abandon wells in accordance with Chapters 62-520 and 62-701, F.A.C., and with the Groundwater Monitoring Plan, as presented in the Permit Documents noted at the beginning of this Permit and as modified by the conditions specified therein.
 - b. **Zone of Discharge.** The Zone of Discharge (ZOD) for the facility shall be a three dimensional volume that extends horizontally from the permitted edge of the solid waste disposal unit a distance of 100 feet, or to the property boundary; or to the shortest distance between the location of the detection monitoring wells and the solid waste disposal unit; whichever is less; and extends vertically from the top of the ground to the base of the surficial aquifer.
 - c. **Class G-II Requirements.** Pursuant to Rule 62-520.420, F.A.C., the Permittee shall ensure that the water quality standards for Class G-II groundwater shall not be exceeded at the boundary of the ZOD.
 - d. **Minimum Criteria.** The Permittee shall ensure that the minimum criteria for groundwater specified in Rule 62-520.400, F.A.C., are not violated within the ZOD.
 - e. **Monitoring Plan.** The Groundwater Monitoring Plan consists of the following wells and piezometers (whose locations and identifications shall be in accordance with Appendix 3.1):

Background Wells:

Well Cluster* MW-1 S,I
Well Cluster* MW-13 S,I

Detection Wells:

Well Cluster* MW-2 S,I
Well Cluster* MW-3 S
Well Cluster* MW-4 S,I
Well Cluster* MW-5 S,I
Well Cluster* MW-6 S,I
Well Cluster* MW-7 S,I
Well Cluster* MW-8 S,I
Well Cluster* MW-9 S,I
Well Cluster* MW-10 S,I

APPENDIX 3
Water Quality Monitoring Plan

	Well Cluster* MW-12 S,I
<u>Compliance Wells:</u>	Well Cluster* MW-15 S,I
	Well Cluster* MW-18 S,I
	Well Cluster* MW-19 S,I
	Well Cluster* MW-21 S,I
	Well Cluster* MW-22 S,I
	Well Cluster* MW-23 S,I
	Well Cluster* MW-25 S,I
<u>Water Level:</u>	MW-1 D
	MW-2 D
	MW-3 I,D
	MW-4 D
	MW-5 D
	MW-6 D
	MW-7 D
	MW-8 D
	MW-9 D
	MW-10 D
	MW-12 D
	MW-13 D
	MW-15 D
	MW-18 D
	MW-19 D
	MW-21 D
	MW-22 D
	MW-23 D
	MW-25 D

(*) Well clusters to consist of shallow (S), intermediate (I), and deep (D) screen interval wells

If monitoring parameters are detected in detection wells in concentrations that are significantly above background water quality, or that are at levels above groundwater standards or criteria, evaluation monitoring shall be initiated within 90 days of notification by DEP pursuant to Rule 62-701.510(7), F.A.C. including, but not limited to, the installation and sampling of compliance wells associated with the affected detection well(s).

- f. New Well Requirements. The Permittee shall submit, the following information to DEP within 15 days of completion of construction of any new groundwater monitoring well(s) (permanent and temporary):

APPENDIX 3
Water Quality Monitoring Plan

Well identification	Driller's Lithologic Log
Latitude/Longitude	Total well depth
Aquifer monitored	Casing diameter
Screen type and slot size	Casing type and length
Elevation at top of pipe	Well construction permit number
Elevation at land surface	Depth to groundwater

New groundwater monitoring wells shall be designed and constructed in accordance with Chapter 62-520, F.A.C., and ASTM Standard D-5092. A surveyed drawing shall be submitted showing the horizontal location of all monitoring wells by metes and bounds or equivalent surveying techniques. The surveyed drawing shall include the monitoring well identification number as well as the location and elevation of all permanent benchmark(s) and/or corner monument marker(s) at the site. The survey shall be conducted by a Florida Licensed Professional Surveyor and Mapper.

Unless they are replacement well(s), any newly installed monitoring well(s) shall be sampled and those samples shall be analyzed for the parameters listed Appendix 3.2, as required by Rule 62-701.510(8)(a) F.A.C., to establish background groundwater quality.

- g. Well Abandonment. Within 60 days of issuance of this Permit, all piezometers and wells not a part of the permit groundwater monitoring plan are to be plugged and abandoned in accordance with St. Johns River Water Management District Rule 40C-3.531. However, a written request for the abandonment of any piezometers or wells shall be submitted to DEP and written approval of the abandonment obtained prior to any abandonment. A written report documenting the plugging and abandonment activities shall be submitted to DEP within 30 days of field activities. All piezometers and wells not abandoned shall be properly maintained and routinely inspected in conjunction with the semiannual groundwater sampling.
- h. Well Inspection Requirements. A visual inspection of wells and piezometers to assess visible damage shall be conducted in conjunction with the semiannual sampling events. All wells are to be clearly labeled and easily visible at all times. The well components at and above ground surface shall be constructed in a manner that secures and protects the groundwater monitoring wells. At each well location, construction shall include a concrete surface pad and above ground vertical protective casing with a locking cap. The casing and top shall be maintained in good

APPENDIX 3 Water Quality Monitoring Plan

working order, intact and locked. A minimum of two protective bollards shall be placed at the edges of the concrete surface pad. Bollards shall, at a minimum, be the approximate height of the protective casing and constructed of materials capable of providing protection from accidental impact with machinery.

- i. Damaged Well Requirements. In the event any monitoring well becomes damaged or inoperable, the Permittee shall notify DEP within 72 hours and shall submit a detailed written report within seven days. The written report shall detail the problem that has occurred and remedial measures that have been taken to prevent a recurrence. Damaged wells shall be repaired or replaced within 60 days. If a monitoring well is unable to be sampled during its normal time frame, it shall be sampled within 30 days of repair or replacement and its analysis shall be submitted to DEP within 60 days of repair or replacement. All monitoring well design and replacement shall be approved by DEP prior to installation.

- j. Groundwater Levels. Groundwater levels shall be recorded no less than 48 hours after well installation and prior to evacuating the well for sample collection. Groundwater level measurements shall be collected semiannually from monitoring well clusters MW-1 (S,I,D), MW-2 (S,I,D), MW-3 (S,I,D), MW-4 (S,I,D), MW-5 (S,I,D), MW-6 (S,I,D), MW-7 (S,I,D), MW-8 (S,I,D), MW-9 (S,I,D), MW-10 (S,I,D), MW-12 (S,I,D), MW-13 (S,I,D), MW-15 (S,I,D), MW-18 (S,I,D), MW-19 (S,I,D), MW-21 (S,I,D), MW-22 (S,I,D), MW-23 (S,I,D) and MW-25 (S,I,D). Elevation measurements, referenced to a consistent, nationally recognized datum, shall include groundwater surface elevation, the top of well casing, and land surface at each site at a precision of plus or minus 0.01 feet. A groundwater surface contour map shall be constructed by a professional geologist or qualified professional engineer, depicting the locations of wells and corresponding groundwater elevations. This information shall be submitted to DEP in conjunction with the semiannual groundwater monitoring report forms. In the event that the data indicates a variation in the horizontal or vertical flow directions such that existing wells are not adequate to intercept contaminants that may be generated from the Facility, the Permittee shall propose additional wells to correct that deficiency or DEP shall require wells to be installed to correct that deficiency.

- k. Sampling. All groundwater background, detection, and compliance monitoring wells shall be sampled and analyzed semiannually for the parameters listed in Appendix 3.3. Specifically, the wells shall be sampled before June 30 and December 30 during each year of this Permit.

APPENDIX 3
Water Quality Monitoring Plan

Compliance with groundwater standards and/or criteria shall be determined by analysis of unfiltered groundwater samples, unless the requirements of Rule 62-520.310(5) F.A.C., are satisfied. Additional samples, wells, and parameters may be required based upon subsequent analyses.

The Permittee shall collect, analyze, report and retain sampling and monitoring data in accordance with Chapter 62-160 F.A.C. and Rule 62-520.600 F.A.C. Any laboratory test required by this permit shall be performed by a laboratory that is certified by the Department of Health (DOH) under Chapter 64E-1, F.A.C., where such certification is required by Rule 62-160.300, F.A.C. The laboratory must be certified for all specific method/analyte combinations that are used to comply with this permit. Biological evaluations shall follow the applicable procedures in DEP-SOP-002/01 (December 2008). All field activities including on-site tests and sample collection, whether performed by a laboratory or another organization, must follow all applicable procedures described in DEP-SOP-002/01 (December 2008). Alternate field procedures and laboratory methods may be used if they have been approved according to the requirements of Rules 62-160.220 and 62-160.330, F.A.C. Minimum detection levels for all analytes shall be at or below groundwater standards and/or criteria for each analyte.

1. Analytical Data Reports. The Permittee shall submit all groundwater sampling results on the Parameter Monitoring Report Form [DEP Form 62-520.900(2)] along with the analytical laboratory reports and a groundwater contour map no later than 60 days from completion of laboratory analysis. Analytical results shall be accompanied by a brief narrative summary, and the Permittee shall include Form 62-701.900(31) Water Quality Monitoring Certification with each report certifying that the laboratory results have been reviewed and approved by the Permittee. The Permittee shall retain the original forms so that the necessary information is available to properly complete future reports.

In addition to the information provided on the Parameter Monitoring Form:

- 1) The laboratory report shall indicate the method on each data sheet, the detection limits and the dilution factor;
- 2) The report shall show, in columnar form, the analytical results and, where applicable, the corresponding Florida Groundwater Standards and/or criteria; and

APPENDIX 3
Water Quality Monitoring Plan

3) The report shall identify all peaks greater than the EPA specified detection limit for the analytical method.

m. Exceedances. The Permittee shall notify DEP within 72 hours of discovering that any groundwater standards and/or criteria are exceeded, or that parameter concentrations in detection wells are significantly above unaffected background groundwater quality. If the Permittee chooses to resample the affected monitoring well(s) to verify the contamination analysis, the resample shall be taken within 30 days from the date the Permittee received the results, and shall submit to DEP the results of the resampled groundwater monitoring well water quality analysis and the original analysis no later than the 15th day of the following month.

Should the Permittee choose not to resample, DEP will consider the water quality analysis that exceeded the standards and/or criteria, or that significantly exceeded background groundwater quality, as representative of current groundwater conditions at the Facility.

n. Report Submittals. All required water quality monitoring reports, including the groundwater sampling field measurements and results, and all groundwater and surface water analytical results, shall be submitted electronically, with one hard copy submitted to the District office, unless DEP indicates otherwise in writing. The water quality data Electronic Data Deliverable (EDD) shall be provided to DEP in an electronic format consistent with the requirements for importing the data into DEP's databases, and shall be submitted no later than the 15th day of the month immediately following the end of the sampling period. This format is presently one that is in accordance with the "Guidance for Submitting Electronic Water Quality Data to the Solid Waste Program" document, provided as Appendix 3.4 in this Permit, but may be changed by DEP in the future. The electronic water quality monitoring reports shall be provided in Adobe pdf format, and along with the hard copy, shall be submitted within 30 days of acceptance and approval of the EDD by DEP, unless requested earlier by DEP. Water quality monitoring reports shall be signed and sealed by a Florida registered professional geologist or professional engineer with experience in hydrogeological investigations, and shall include the following:

- 1) A cover letter;
- 2) A summary of exceedances and recommendations;
- 3) Groundwater contour maps;
- 4) Chain of custody forms;

APPENDIX 3
Water Quality Monitoring Plan

- 5) Water levels on a water elevation table;
- 6) A Groundwater Monitoring Report Certification using the appropriate DEP form;
- 7) Appropriate sampling information on Form FD 9000-24 (DEP-SOP-001/01); and
- 8) Laboratory and Field EDDs and error logs, as applicable.

With the exception of the above-mentioned hard copy, all submittals in response to this specific condition shall be sent to the Florida Department of Environmental Protection, Northeast District Office – Solid Waste Section in Jacksonville, Florida.

- o. Technical Reports. The Permittee shall monitor site-specific conditions in addition to the data obtained from the ground and surface water monitoring systems. A technical report shall be submitted by June 11, 2017, which is 61 days prior to the expiration of the standard 20-year long term care period (which ends on August 11, 2017). It shall contain the following:
 - 1) Tabular displays of any data that shows a monitoring parameter has been detected, and graphical displays of any detected leachate key indicator parameters (such as pH, specific conductance, TDS, TOC, sulfate, chloride, sodium, and iron), including hydrographs for all monitoring wells;
 - 2) Trend analyses of any monitoring parameters consistently detected;
 - 3) Comparisons among shallow, middle, and deep zone wells;
 - 4) Comparisons between background water quality and the water quality in detection and compliance wells;
 - 5) Correlations between related parameters such as total dissolved solids and specific conductance;
 - 6) Discussion of erratic and/or poorly correlated data;
 - 7) An interpretation of the ground water contour maps, including an evaluation of ground water flow rates; and
 - 8) An evaluation of the adequacy of the water quality monitoring frequency and sampling locations based upon site conditions.

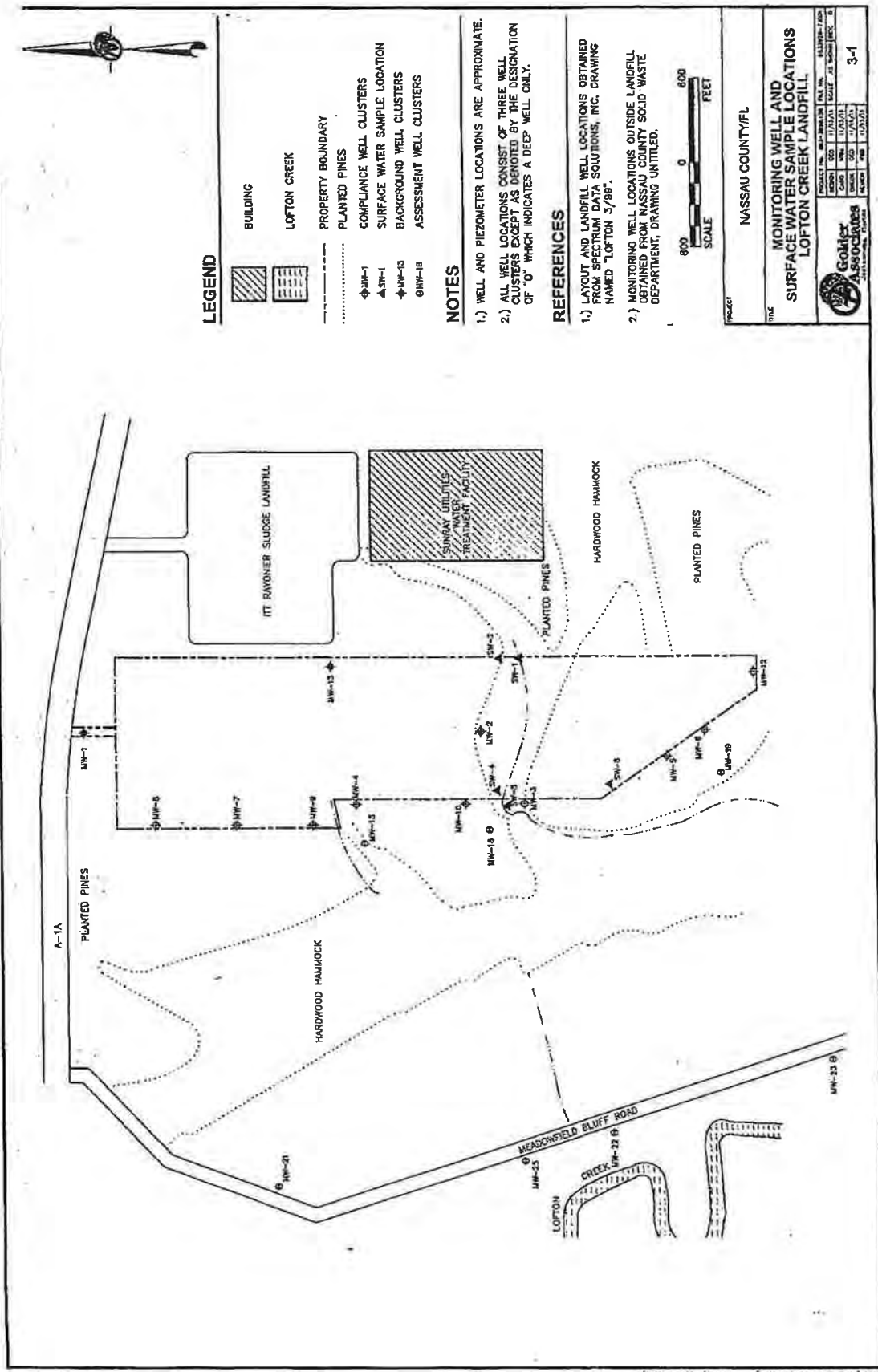
The report shall contain an evaluation of the ground and surface water monitoring programs, and the adequacy of the monitoring frequency and analyses shall be determined. The Permittee shall have this report prepared, signed, and sealed by a professional geologist or qualified professional engineer.

APPENDIX 3
Water Quality Monitoring Plan

- p. Monitoring Plan Amendments. Based on any information or data obtained after the effective date of this permit, DEP reserves the right to modify the conditions set forth herein pursuant to the latest state Rules and regulations (before or after the effective date of this permit); and may modify the permit conditions to address additional groundwater assessment, additional monitoring wells and/or analytical parameters and compliance monitoring.
2. **Surface Water Monitoring.** Surface waters shall be sampled and analyzed semiannually in conjunction with the groundwater monitoring program to assess how surface water quality has been affected by the landfill's activities. The following Surface Water Monitoring Program shall be implemented:
- a. General Requirements. The Surface Water Monitoring Program shall be conducted in accordance with plans submitted to DEP, as modified by the conditions specified in this Permit.
- b. Surface Water Requirements. Pursuant to Rule 62-302.300, F.A.C., the Permittee shall ensure that the applicable surface water standards are not exceeded.
- c. Sample Locations. Surface water samples shall be collected from the approximate locations designated as SW-1, SW-2, SW-4, SW-5, and SW-6 on Appendix 3.1. If the pond(s) are discharging, the sampling locations shall be at the point of discharge. If discharge is not occurring at the time of sampling, surface water samples shall be collected from the approximate center of the retention pond(s).
- d. Surface Water Sampling. All surface water sampling points shall be sampled and analyzed on a semiannual basis for the parameters listed in Appendix 3.5. However, additional sampling points and parameters may be required based upon subsequent analyses.
- e. Exceedances. If water standards and/or criteria are exceeded at any time and/or whenever a serious problem occurs at this Facility, the Permittee shall immediately notify DEP by telephone. Within seven days of telephone notification, the Permittee shall submit to DEP a written report explaining the extent of the problem, its cause, and what actions have been or will be taken to correct the problem.
- f. Surface Water Reporting. All surface water sampling results shall be reported in accordance with Specific Conditions 1.n and 1.o and submitted as part of the semiannual groundwater monitoring reports.

APPENDIX 3.1
Monitoring Well and Surface Water Sample Locations

APPENDIX 3.1



APPENDIX 3.2
Initial Background Groundwater Parameters

Field Parameters

Static water level in wells before purging
Specified conductivity
pH
Dissolved oxygen
Turbidity
Temperature
Colors and sheens
(by observation)

Laboratory parameters

Total ammonia - N
Chlorides
Iron
Mercury
Nitrate
Sodium
Total dissolved solids (TDS)
Those parameters listed in 40 CFR
Part
258 Appendix I & II

APPENDIX 3.3 Semi-Annual Groundwater Parameters

Field Parameters

Static Water Levels
Specific Conductivity
pH
Dissolved Oxygen
Turbidity
Temperature
Colors and Sheens

Specific Sampling Parameters

VOCs

Bromodichloromethane	1,1-Dichloroethene
Bromoform	1,2-Dichloroethane
Bromomethane	trans-1,2-Dichloroethene
Carbon Tetrachloride	cis-1,3-Dichloropropene
Chlorobenzene	trans-1,3-Dichloropropene
Chloroethane	1,2-Dichloropropane
2-Chloroethylvinyl Ether	Methylene Chloride
Chloroform	1,1,2,2-Tetrachloroethane
Chloromethane	Tetrachloroethene
Dibromochloromethane	1,1,1-Trichloroethane
1,2-Dichlorobenzene	1,1,2-Trichloroethane
1,3-Dichlorobenzene	Trichloroethene
1,4-Dichlorobenzene	Trichlorofluoromethane
Dichlorodifluoromethane	Vinyl Chloride
1,1-Dichloroethane	Xylenes
Benzene	Ethylbenzene
	Toluene

Field Parameters, Ammonia-Nitrogen, Bicarbonate, Arsenic, TDS, TOC, & Iron to be sampled from MW-1S [Background well], MW-1I [Background well], MW-13S [Background well], MW-13I [Background well], MW-2S, MW-2I, MW-3S, MW-4S, MW-4I, MW-5S, MW-5I, MW-6S, MW-6I, MW-7S, MW-7I, MW-8S, MW-8I, MW-9S, MW-9I, MW-10S, MW-10I, MW-12S, MW-12I, MW-15S, MW-15I, MW-18S, MW-18I, MW-19S, MW-19I, MW-21S, MW-21I, MW-22S, MW-22I, MW-23S, MW-23I, MW-25S & MW-25I.

Chromium only sampled in MW-1S [Background well], MW-1I [Background well], MW-13S [Background well], MW-13I [Background well], MW-6I & MW-19I.

APPENDIX 3.3
Semi-Annual Groundwater Parameters

Sodium only sampled in MW-1S [Background well], MW-1I [Background well], MW-13S [Background well], MW-13I [Background well], MW-4S, MW-7S, MW-7I, MW-8I, MW-9S, MW-9I, MW-21S, MW-21I, MW-22S, MW-22I, MW-23S, MW-23I, MW-24S, MW-24I, MW-25S & MW-25I.

VOCs only sampled in MW-1S [Background well], MW-1I [Background well], MW-13S [Background well], MW-13I [Background well], MW-3S, MW-4S, MW-4I, MW-5S, MW-6S, MW-7S, MW-7I, MW-8S, MW-8I, MW-9S, MW-9I, MW-10I, MW-15I, MW-18S, MW-18I, MW-21S, MW-21I, MW-23S & MW-25I.

Vanadium only sampled in MW-1S [Background well], MW-1I [Background well], MW-13S [Background well], MW-13I [Background well], MW-21S & MW-25S.

APPENDIX 3.4
**Guidance for Submitting Electronic Water Quality Data
to the Solid Waste Program**

I. General Information

Water quality monitoring reports and all ground and surface water analytical results for the Solid Waste Program shall be submitted to the Department electronically on compact disc or flash drive media readable by Microsoft Windows. Water quality monitoring reports shall be submitted in Adobe pdf format. Unless otherwise approved by the Department, the water quality Electronic Data Deliverable (EDD) shall be compatible with software called Florida DEP Automated Data Processing Tool (ADaPT). ADaPT¹ has been developed to evaluate and upload water quality data into the Department's Water Assurance Compliance System (WACS) database. A copy of this ADaPT software with installation instructions and EDD specifications can be downloaded from the following website address:

<http://www.dep.state.fl.us/waste/categories/shw/pages/ADaPT.htm>

II. Monitoring Report

The monitoring report shall be submitted in Adobe pdf format, with the EDD as an attachment, and shall include the following items:

1. Cover letter;
2. Summary of exceedences and recommendations;
3. Ground water contour maps;
4. Chain of custody forms;
5. Water levels, water elevation table;
6. Ground Water Monitoring Report Certification, using the appropriate Department form;
7. Appropriate sampling information on Form FD 9000-24 (DEP-SOP-001/01);
and,
8. Laboratory and Field EDDs that are compatible with ADaPT software and the ADaPT error log(s).

¹ The Department recognizes that many laboratories have been using software called Validator to prepare the water quality data EDDs for solid waste facilities. In the event ADaPT is not available or a laboratory preparing the EDDs has not yet transitioned to ADaPT, then Validator may continue to be used to prepare the EDDs for submittal to the Department. However, the laboratory should transition to ADaPT as soon as possible since at some date in the future Validator will no longer be supported and become obsolete.

APPENDIX 3.4
Guidance for Submitting Electronic Water Quality Data
to the Solid Waste Program

The monitoring report shall be sent both to:

Florida Department of Environmental Protection
Northeast District Office
7825 Baymeadows Way, Suite 200B
Jacksonville, Florida 32256

And to:

Florida Department of Environmental Protection
Solid Waste Section
2600 Blair Stone Road, MS 4565
Tallahassee, Florida, 32399-2400

III. ADaPT EDDs

The ADaPT EDD consists of two electronic deliverables: (1) a Laboratory EDD, identified as swldd.txt; and (2) a Field EDD identified as swfdd.txt. The format for the Laboratory EDD and the Field EDD are described below. In addition, as explained in Section V, a copy of the Laboratory EDD shall be prepared in Adobe Portable Document Format (PDF) file by the laboratory.

The Laboratory EDD shall be submitted in a comma separated (.csv format) text file which can be produced through Excel. The Laboratory EDD file name format shall be: WACS Facility I.D. underscore Begin Sampling Date (yyyymm) underscore swldd.txt. The period at the end would not be included. For example, with WACS Facility I.D. # 12345 where sampling started in November and ended in December of 2008, the Laboratory EDD file name should be: 12345_200811_swldd.txt.

The Field EDD shall be submitted in the same comma separated (.csv format) text file as the Laboratory EDD. The Field EDD file name format shall be: WACS Facility I.D. underscore Begin Sampling Date (yyyymm) underscore swfdd.txt. Again, the period at the end is not included. For example, with WACS Facility I.D. # 12345 where sampling started in November and ended in December of 2008, the file name should be: 12345_200811_swfdd.txt.

For confirmation sampling, add the term _conf to the EDD filenames as follows: 12345_200811_conf_swldd.txt for the Laboratory EDD or 12345_200811_conf_swfdd.txt for the Field EDD.

APPENDIX 3.4
Guidance for Submitting Electronic Water Quality Data
to the Solid Waste Program

For data that is resubmitted, add _#, where # is the number of data submittals (greater than 1). For example, if the data was resubmitted for the first time, and was thus submittal number 2, then the EDD filenames would be as follows:
12345_200811_2_swldd.txt for the Laboratory EDD and 12345_200811_2_swfdd.txt for the Field EDD.

Finally, taking this to an extreme, if conformation data was resubmitted for say the 10th time, then the EDD filenames would be: 12345_200811_conf_10_swldd.txt for the Laboratory EDD or 12345_200811_conf_10_swfdd.txt for the Field EDD.

IV. Signatures Required

Water quality monitoring reports shall be signed and sealed by a Florida registered professional geologist or professional engineer with experience in hydrogeological investigations. A sealed signature page may be submitted with the report provided that the seal is legible (gray the embossed seal and scan). Otherwise, you must separately mail the sealed and signed page.

V. Process Required

Three steps are generally required. First, two copies of the Laboratory EDD, one in comma separated text format and one as a PDF file, must be submitted by the laboratory. A digitally "signed" PDF copy² by the laboratory serves to maintain the integrity of the Laboratory EDD. In order to validate the QA/QC aspects of the Laboratory EDD, the permittee shall ensure the laboratory processes the Laboratory EDD through ADaPT using both their laboratory specific library and the Department's Solid Waste Master library and corrects all critical errors and explains all non-critical errors prior to submittal. Second, the appropriate entity (laboratory, consultant, or permittee) shall process the Field EDD through ADaPT using the Department's Solid Waste Master library and correct all critical errors and explain all non-critical errors prior to submittal. Finally, as a completeness check, the permittee or consultant shall process both the Laboratory EDD and the Field EDD through ADaPT and confirm a successful export to disk prior to submitting the Laboratory EDD, Field EDD and ADaPT error log(s) to the Department.

² This would be a read only file.

APPENDIX 3.4
Guidance for Submitting Electronic Water Quality Data
to the Solid Waste Program

VI. Resources

In the event help is needed to prepare these EDDs, you can contact the Department's Solid Waste staff at the appropriate District office. The information for the Department's District offices is as follows:

Northwest District Office
160 Governmental Center, Room 308
Pensacola, Florida 32502
(850) 595-8300

Northeast District Office
8800 Baymeadows Way West, Suite 100
Jacksonville, Florida 32256-7590
(904) 256-1700

Southwest District Office
13051 N. Telecom Parkway
Temple Terrace, Florida 33637
(813) 632-7600

Central District Office
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803
(407) 894-7555

South District Office
P.O. Box 2549
2295 Victoria Avenue, Suite 364
Fort Myers, Florida 33901
(239) 332-6975

Southeast District Office
400 North Congress Avenue, Suite 200
West Palm Beach, Florida 33401
(561) 681-6600

You can also receive help by contacting Mr. Clark Moore (850-245-8739) or Mr. Lee Martin (850-245-8734) in Tallahassee.

APPENDIX 3.5
Initial Background and Semi-Annual Surface Water Parameters

Field Parameters

Specified conductivity
pH
Dissolved Oxygen (DO)
Turbidity
Temperature
Water Temperature

Total Depth
Sample Depth
Stream Velocity
Secchi
Odors, Colors, Sheens

Laboratory parameters

Conductivity
pH
Alkalinity
Total Dissolved Solids (TDS)
Total Dissolved Volatile Solids (TDVS)
Total Suspended Solids (TSS)
Total Volatile Solids (TVS)
Total Fixed Solids (TFS)
NH₃
Total Kjeldahl Nitrogen (TKN)
NO₂ + NO₃
TPO₄
OPO₄
Hardness
Chloride
Sulfate
Zinc

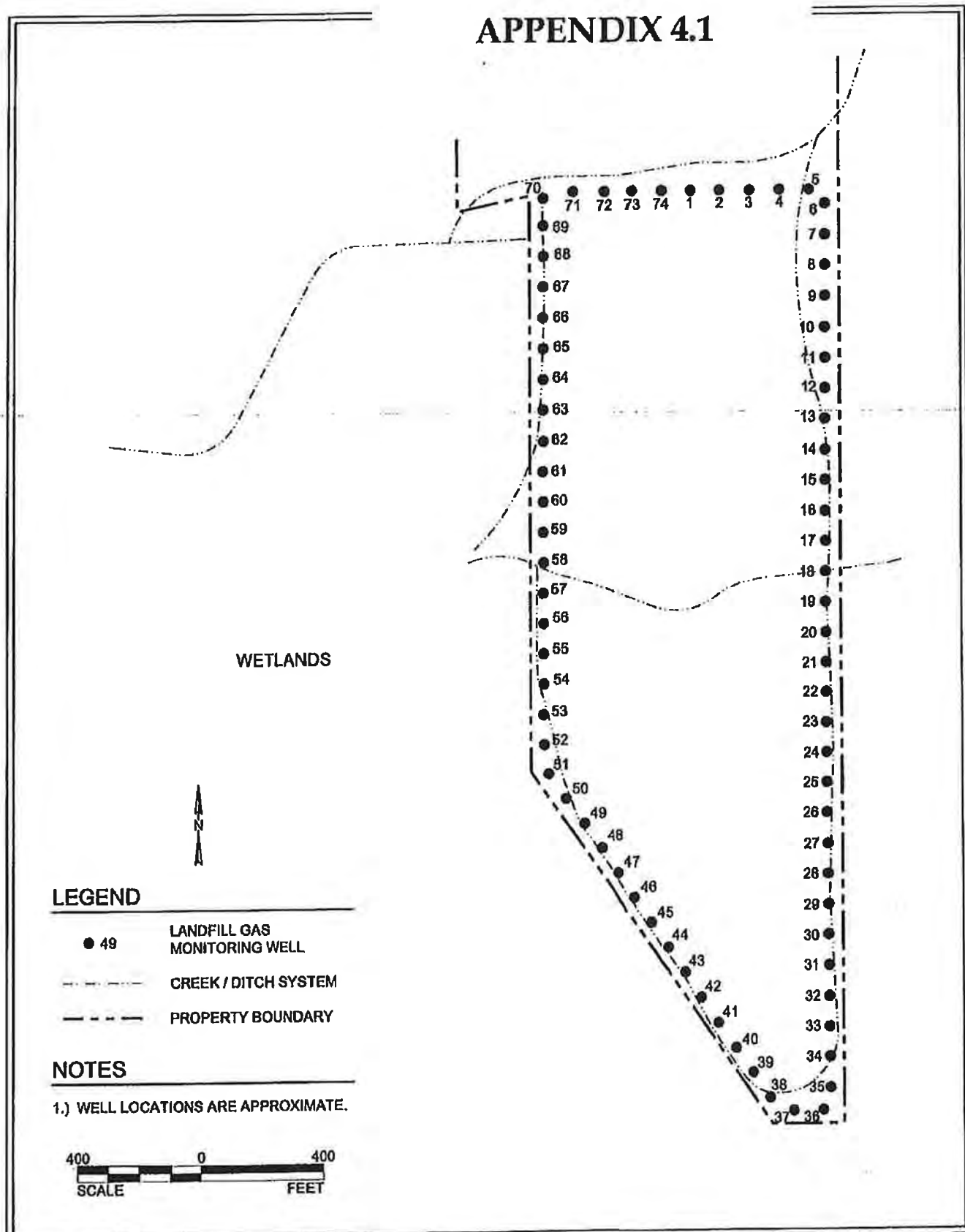
Fluoride
Chemical Oxygen Demand (COD)
Total Nitrogen
Ammonium (NH₄)
Arsenic
Bicarbonate
Biological Oxygen Demand (BOD₅)
Cadmium
Chromium
Copper
Iron
Lead
Mercury
Nitrate
Sodium
Total Organic Carbon (TOC)

VOCs

Bromodichloromethane
Bromoform
Bromomethane
Carbon Tetrachloride
Chlorobenzene
Chloroethane
2-Chloroethylvinyl Ether
Chloroform
Chloromethane
Dibromochloromethane
1,2-Dichlorobenzene
1,3-Dichlorobenzene
1,4-Dichlorobenzene
Dichlorodifluoromethane
1,1-Dichloroethane
Toluene
Xylenes

1,1-Dichloroethene
trans-1,2-Dichloroethene
cis-1,3-Dichloropropene
trans-1,3-Dichloropropene
1,2-Dichloropropane
Methylene Chloride
1,1,2,2-Tetrachloroethane
Tetrachloroethene
1,1,1-Trichloroethane
1,1,2-Trichloroethane
Trichloroethene
Trichlorofluoromethane
Vinyl Chloride
1,2-Dichloroethane
Benzene
Ethylbenzene

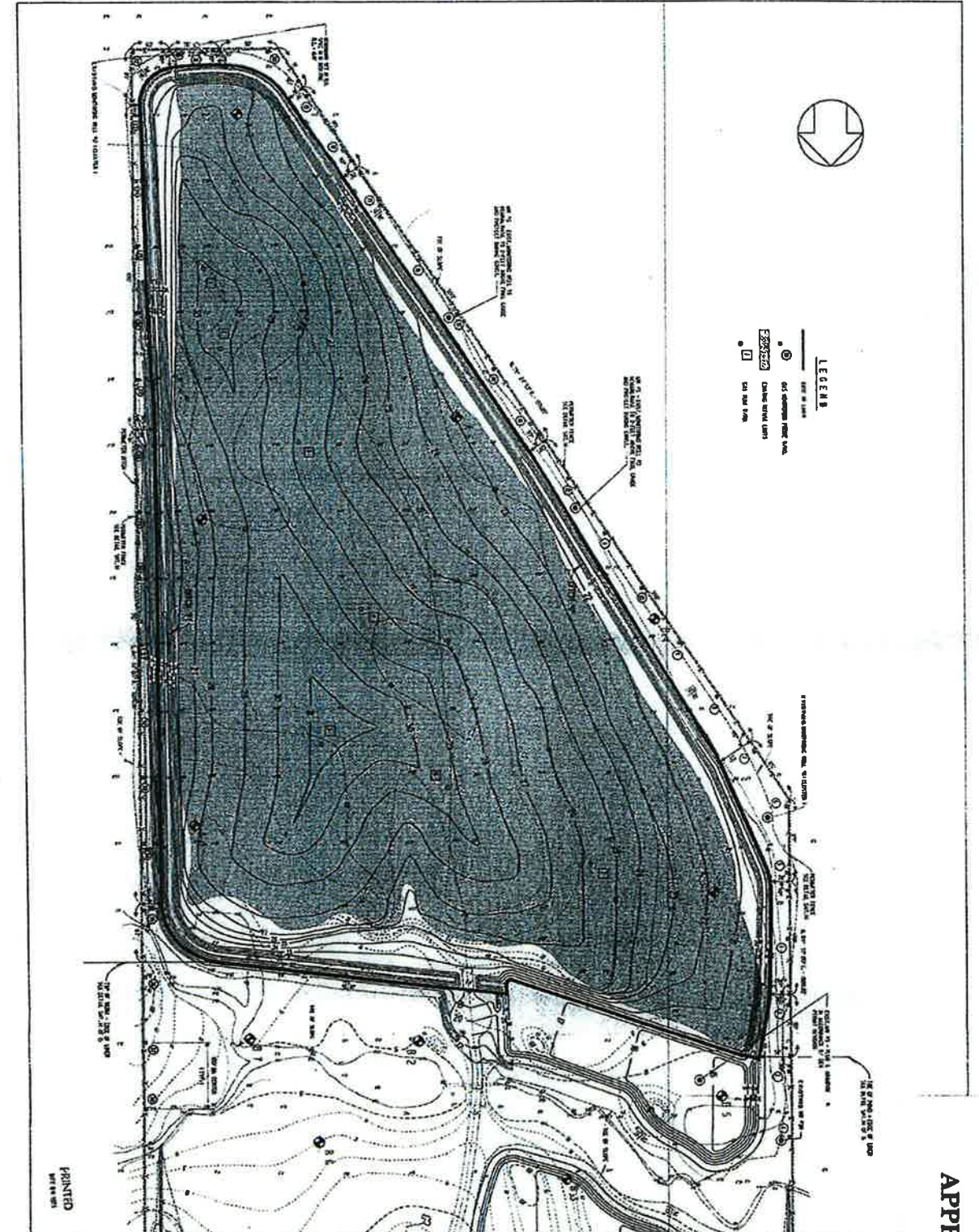
APPENDIX 4.1



S2Li 531 Versailles Drive, Suite 202
Malland, FL 32751
PHONE: (407) 475-9163
FAX: (407) 475-9169
Certification of Authorization #7831

**LANDFILL GAS MONITORING WELL LOCATIONS
LOFTON CREEK LANDFILL
NASSAU COUNTY, FLORIDA**

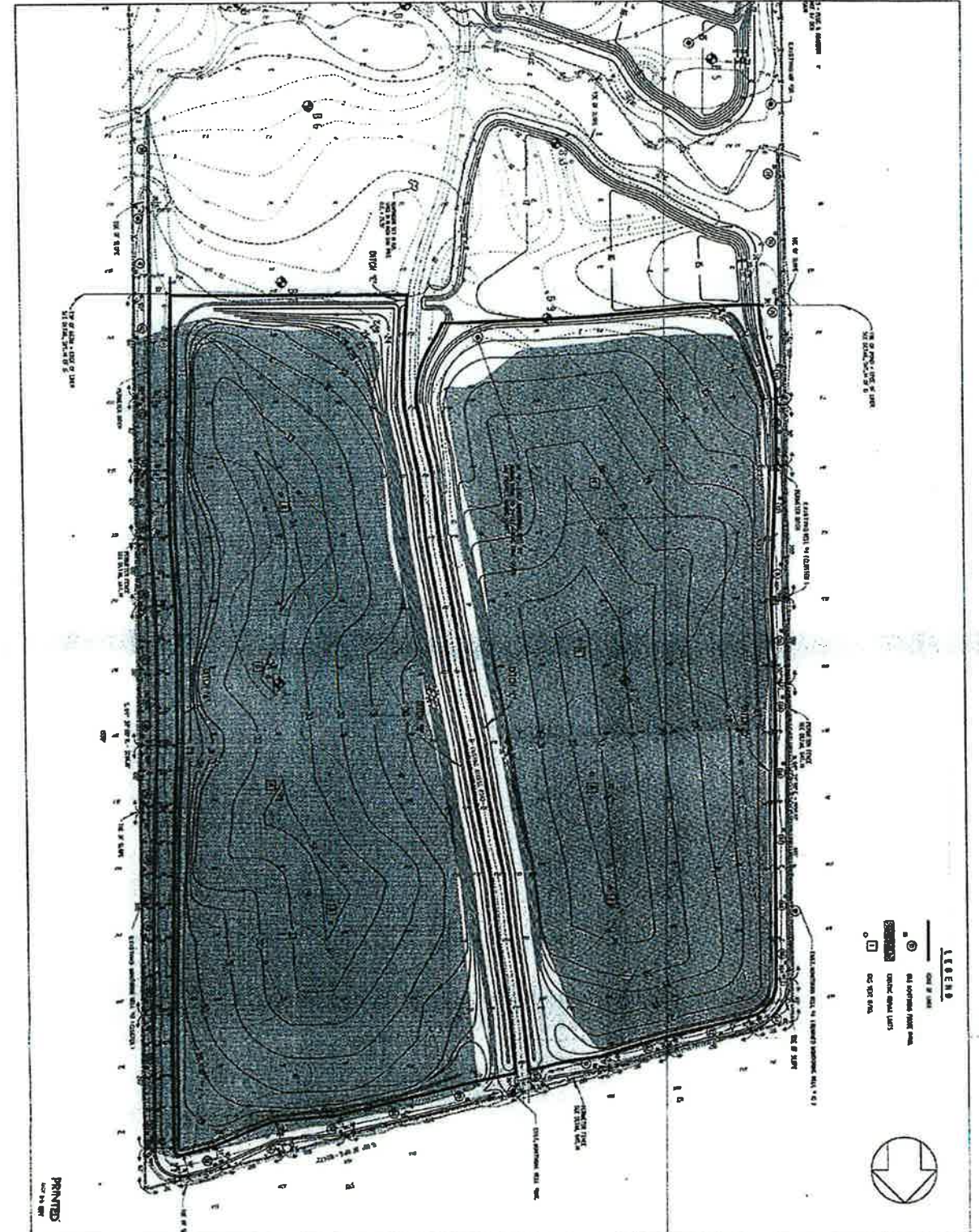
DATE: 06/20/13
PROJECT: 201202



PRINTED
DATE: 06/20/13

BHR BESSANT, HAMMACK & RUCKENSTEIN, INC. CONSULTING AND DESIGN ENGINEERS <small>1100 UNIVERSITY BLVD., SUITE 200 MIAMI, FLORIDA 33136 (305) 575-1100</small>		LOFTON CREEK LANDFILL CLOSURE PLAN FOR HASSAU COUNTY, FLORIDA		LANDFILL LINER LOCATION PLAN SOUTH SECTION	
SCALE: 1" = 50'	NO. 1	DATE: 06/20/13	DESIGNED BY: G. PERLIN	BY: G. PERLIN	DATE: 06/20/13
			CHECKED BY: G. REED	DATE: 06/20/13	

APPENDIX 4.2



PRINTED
BY: [illegible]

LEGEND

[Symbol]	TOP OF 20'
[Symbol]	EXISTING 20'
[Symbol]	20' TO 30'
[Symbol]	30' TO 40'
[Symbol]	40' TO 50'
[Symbol]	50' TO 60'
[Symbol]	60' TO 70'
[Symbol]	70' TO 80'
[Symbol]	80' TO 90'
[Symbol]	90' TO 100'
[Symbol]	100' TO 110'
[Symbol]	110' TO 120'
[Symbol]	120' TO 130'
[Symbol]	130' TO 140'
[Symbol]	140' TO 150'
[Symbol]	150' TO 160'
[Symbol]	160' TO 170'
[Symbol]	170' TO 180'
[Symbol]	180' TO 190'
[Symbol]	190' TO 200'



BHR BRASSETT, BARNHART & BUCKMAN, INC. CONSULTING AND DESIGN ENGINEERS		LOFTON CREEK LANDFILL CLOSURE PLAN FOR NASSAU COUNTY, FLORIDA		LANDFILL LINER LOCATION PLAN NORTH SECTION	
SCALE	1" = 50'	NO.	DATE	DESCRIPTION	BY
DESIGNED BY	D. PEYLER	1	10/11/11	REVISION FOR LIA.	SLA
REVISED BY	G. REED	2	03/05/12	REVISION FOR LIA. PERFORMED CHECKS	SLA
CHECKED BY					

APPENDIX 5

Table A-1: Post-Closure Inspection Form (Page 1 of 3)

LANDFILL: _____		OWNER: _____			
Observation Report Number: _____		Date of Observation: ___/___/___			
Time Arrived Onsite: _____		Time Departed Site: _____			
Field Personnel: _____					
	YES (1)	NO	NOT OBSERVED	APPROXIMATE TIME PERIOD FOR CORRECTION (2)	COMMENT NO.
Section A: Site Security					
1. Entry sign damaged or missing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
2. Any corrosion or damage to perimeter fence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
3. Any damage to gates and locks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
Section B: Roads					
1. Access compromised by road conditions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
2. Perimeter road compromised by road conditions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
Section C: Final Cover System					
1. Evidence of settlement or ponding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
2. Evidence of erosion, cracks, or gullies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
3. Evidence of erosion or sedimentation of slope runoff control terraces	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
4. Inadequate or stressed grass cover	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	45 days	_____
5. Grass height greater than 18 inches	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
6. Growth of damaging weeds or saplings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
7. Evidence of leachate release	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
8. Geomembrane liner impact	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
a. Notify FDEP	<input type="checkbox"/>			72 hours	_____
b. Provide written report to FDEP	<input type="checkbox"/>			7 days	_____
Section D: Drainage Flumes					
1. Blockage at entrance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7 days	_____
2. Settlement of the channel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
3. Damage/cracks in channel lining	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
4. Excessive siltling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
(1) If yes, assign a comment number and see Page 3 for instructions. (2) Approximate number of days from detection for correction of the inspection item.					
Signature of Observer: _____		Date of Observation: ___/___/___			

Table A-1: Post-Closure Inspection Form (Page 2 of 3)

LANDFILL: _____		OWNER: _____			
Observation Report Number: _____			Date of Observation: ___/___/___		
	YES (1)	NO	NOT OBSERVED	APPROXIMATE TIME PERIOD FOR CORRECTION (2)	COMMENT NO.
Section E: Perimeter Drainage System					
1. Sloughing of ditch slopes or berms ditches, impairment of flow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
2. Damaged/malfunctioning detention ponds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
3. Erosion of ditch slopes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
4. Vegetation height greater than 18 inches	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
5. Problems associated with siltting, sediment level	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
Section F: Gas Vents					
1. Visible damage to system components	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	60 days	_____
a. Notify FDEP	<input type="checkbox"/>			Immediately In Writing	_____
2. Blockage in pipes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	60 days	_____
a. Notify FDEP	<input type="checkbox"/>			Immediately In Writing	_____
3. Local settlement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	60 days	_____
Section G: Groundwater Monitoring Wells					
1. Protective casing missing or damaged	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	60 days	_____
2. Concrete pads damaged or cracked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	60 days	_____
3. Wells/probes unlocked, locks missing, damaged or inoperable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	60 days	_____
a. Notify FDEP (if damaged or inoperable)	<input type="checkbox"/>			Immediately In Writing	_____
Section H: Limits of Waste Monuments					
1. Monuments in unacceptable condition and/or not visual	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 Days	_____
2. Limit of waste markers, damaged or missing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 Days	_____
(1) If yes, assign a comment number and see Page 3 for instructions.					
(2) Approximate number of days from detection for correction of the inspection item.					
Signature of Observer: _____			Date of Observation: ___/___/___		



FLORIDA DEPARTMENT OF Environmental Protection

Northeast District
8800 Baymeadows Way West, Suite 100
Jacksonville, FL 32256

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Shawn Hamilton
Secretary

December 17, 2021

Transmitted via email to: rcompanion@nassaucountyfl.com

In the Matter of an
Application for Permit by:

Mr. Robert T. Companion, P.E.
County Engineer
Nassau County Board of County Commissioners
96160 Nassau Place
Yulee, Florida 32097

DEP File No.: 64999-010
Facility WACS I.D. No.: 37138
Lofton Creek Class I Landfill (Closed)
Nassau County – Solid Waste

NOTICE OF PERMIT ISSUANCE

Enclosed is the State of Florida Department of Environmental Protection (Department or DEP) Permit Number 64999-010-SF to continue to monitor, thoroughly assess on- and off-site groundwater quality issues, and maintain the closed Lofton Creek Class I Landfill (Facility) during the 10-years Long-Term Care period. This Permit is issued pursuant to Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-520, 62-550, and 62-701, Florida Administrative Code (F.A.C.).

This Permit is final and effective on the date filed with the Clerk of the Department unless a petition is filed or unless a request for an extension of time in which to file a petition is filed within the time specified for filing a petition, and conforms to Rule 62-103.070, F.A.C. The procedures for petitioning for a hearing are set forth below.

A person whose substantial interests are affected by this permit may petition for an administrative proceeding (hearing) in accordance with Section 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of DEP at 3900 Commonwealth Boulevard MS #35, Tallahassee, Florida 32399-3000, within 14 days of receipt of this Permit. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, F.S.

The Petition shall contain the following information:

- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, DEP Permit File Number and the county in which the project is proposed;

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(b) A statement of how and when each petitioner received notice of DEP's action or proposed action;

(c) A statement of how each petitioner's substantial interests are affected by DEP's action or proposed action;

(d) A statement of the material facts disputed by Petitioner, if any;

(e) A statement of facts which petitioner contends warrants reversal or modification of DEP's action or proposed action;

(f) A statement of which rules or statutes petitioner contends require reversal or modification of DEP's action or proposed action; and

(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants DEP to take with respect to DEP's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, DEP's final action may be different from the position taken by it in this permit. Persons whose substantial interests will be affected by any decision of DEP with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this notice in the Office of General Counsel at the above address of DEP. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

When the Order (Permit) is final, any party to the Order has the right to seek judicial review of the Order pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of DEP in the Office of General Counsel, 3900 Commonwealth Boulevard, MS #35, Tallahassee, Florida 32399-3000; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date the Final Order is filed with the Clerk of DEP.

Mediation is not available for this permit renewal.

Executed in Duval County, Florida.

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STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION



Michelle Neeley
Environmental Manager

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this permit and all copies were sent on the filing date below to the following listed persons:

Omar E. Smith, P.E., S2L, Incorporated, osmith@s2li.com
Richard L. Potts, P.G., The Colinas Group, Inc., rickpotts@cfl.rr.com
Jeff Schroer, NED-DEP
Michael Bogin, NED-DEP

FILING AND ACKNOWLEDGMENT

FILED, on this date, pursuant to Section 120.52, F. S., with the designated Department Clerk, receipt of which is hereby acknowledged.



Clerk

December 17, 2021
Date



FLORIDA DEPARTMENT OF Environmental Protection

Northeast District
8800 Baymeadows Way West, Suite 100
Jacksonville, FL 32256

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Shawn Hamilton
Secretary

Permit Issued to:

Nassau County Board of County Commissioners
96135 Nassau Place, Suite 1
Yulee, Florida 32097
904.491.7330

Facility WACS I.D. No.: 37138
Lofton Creek Class I Landfill (Closed)
2.5 miles east of Yulee on the south side of State Road A1A
Lofton Creek, Nassau County, Florida

Contact Person:

Mr. Robert T. Companion, P.E., County Engineer
Nassau County Board of County Commissioners
96160 Nassau Place
Yulee, Florida 32097
rcompanion@nassaucountyfl.com
904.530.6225

Solid Waste Long-Term Care Renewal Permit – Class I Landfill

Permit No.: 64999-010-SF
Replaces Permit No.: 64999-006-SF

Permit Issued: December 17, 2021
Permit Renewal Application Due Date: [61 days before expiration]
Permit Expires: December 17, 2031

Permitting Authority

Florida Department of Environmental Protection
Northeast District Office
8800 Baymeadows Way West, Suite 100
Jacksonville, Florida 32256
Phone: 904.256.1700
Fax: 904.256.1587

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FACILITY NAME: Lofton Creek Class I Landfill

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SECTION 1 - SUMMARY INFORMATION

A. Authorization

The Permittee is hereby authorized to monitor and maintain the Facility described below in accordance with the specific and general conditions of this Permit and any documents attached to this permit or specifically referenced in this Permit and made a part of this Permit.

This solid waste Long-Term Care (LTC) Permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.) and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-520, 62-550, and 62-701.

This permit does not relieve the Permittee from complying with any other appropriate local zoning or land use ordinances or with any other laws, rules or ordinances. Receipt of any permits from the Florida Department of Environmental Protection (Department) does not relieve the applicant from obtaining other federal, state, and local permits and/or modifications required by law, including those from other Sections within the Department or of the Water Management District.

B. Facility Location

Lofton Creek Landfill is located approximately 2.5 miles east of the City of Yulee on the south side of State Road AIA at latitude/longitude 30°37'41"N /81°33'24" W, which is in Section 37, Township 2 North, Range 27 East in Nassau County, Florida. Vicinity Map and Site Plan of the Facility are provided as ATTACHMENTS 1 and 2.

C. Facility Description

Lofton Creek Class I Landfill (Facility) began operations in 1978 under Nassau County management. The landfilling activities at the site were performed using the trench and fill method. The landfill was closed and the 20-year LTC period began on August 11, 1997. The Nassau County Solid Waste Management Department, which took over operations of the Facility in 1995, oversaw the landfill closure, and continue to monitor and maintain the Facility during its post-closure care period. The Department extended the regulatory LTC period on May 25, 2017 due to Facility's impact of groundwater at concentrations above water quality standards. The total site area is 94 acres of which 45± acres are capped with a liner system covering the entire waste-filled areas. The final cover system consists of from top to bottom: a vegetative cover, a 6-inch topsoil layer, a 12-inch thick drainage layer, a 40-mil High Density Polyethylene synthetic geomembrane, a 6-inch soil clay layer with a permeability of 1×10^{-7} cm/sec or less, and intermediate cover. The waste-filled area consists of two closed areas approximately 19 and 26 acres in size. Approximately 2.5 acres (two basins) are dedicated to stormwater management. The remaining portion of the property consists primarily of wooded space on the north side of the property and wooded space for a small creek that divides the two capped areas. The creek flows from the east to the west. There are three residential developments and one industrial use property adjacent to the site. Two of the occupied residential developments are approximately 1,400 feet to the west and 400 feet to the south/southeast of the site, respectively. There is also a newly constructed apartment complex approximately 400 feet northwest of the site. A sludge

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processing/landfill and wastewater treatment facility is located approximately 400 feet east of the site. North of the property, the land is occupied by commercial businesses and governmental complexes.

The Facility design includes a Groundwater Monitoring System and a Stormwater Management System.

D. Appendices Made Part of This Permit

APPENDIX 1 - General Conditions

APPENDIX 2 – Approved Application Documents

APPENDIX 3 – Water Quality Monitoring Plan

APPENDIX 3.1 – Monitoring Well Sample Locations

APPENDIX 3.2 – Initial Background Groundwater Parameters

APPENDIX 3.3 – Annual Groundwater Monitoring Parameters

APPENDIX 3.4 – Guidance for Submitting Electronic Water Quality Data to the Solid Waste Program

E. Attachment Made Part of This Permit

ATTACHMENT 1 – Vicinity Map

ATTACHMENT 2 – Site Plan

ATTACHMENT 3 – Passive Gas Venting Well Locations

ATTACHMENT 4 – Post-Closure Inspection Form

SECTION 2 - SPECIFIC CONDITIONS

A. Administrative Requirements

1. Documents Part of This Permit. The Permit Application as finally revised, replaced or amended in response to the Department's Request(s) for Additional Information are contained in the Department's files and are made a part of this permit. Those documents that make up the complete Permit Application are listed in APPENDIX 2.

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2. Permit Modification. Any change to construction, operation, monitoring, or closure requirements of this permit may require a modification to this permit, in accordance with the provisions of subsection 62-701.320(4) F.A.C.
3. Permit Renewal. In order to ensure uninterrupted operation of this Facility, a timely and sufficient permit renewal application must be submitted to the Department in accordance with subsection 62-701.320(10), F.A.C. A permit application submitted at least 61 days prior to the expiration of this permit is considered timely and sufficient.
4. Transfer of Permit or Name Change. In accordance with subsection 62-701.320(11), F.A.C., the Department must be notified by submitting Form 62-701.900(8) within 30 days: (a) of any sale or conveyance of the facility; (b) if a new or different person takes ownership or control of the facility; or (c) if the facility name or Permittee's legal name is changed.

B. Construction Requirements

Construction requirements are not applicable to this Permit.

C. Operation Requirements

Operation requirements are not applicable to this Permit.

D. Water Quality Monitoring Requirements

The Water Quality Monitoring Plan for this Permit is included in APPENDIX 3.

E. Gas Management System Requirements

The Permittee shall control objectionable odors. Fifteen Passive gas vents have been installed to allow the release of landfill gas generated and accumulating under the closure cap and within the upper surface of the waste. These passive vents are spread out and located at the higher elevations of the landfill surface. Locations of gas venting wells are presented in ATTACHMENT 3. The gas venting system shall be maintained to ensure that the vents are free of obstruction and operating properly. If objectionable odors are confirmed beyond the property boundary then upon notification by the Department the Permittee shall develop and implement an odor remediation plan in accordance with the requirements of paragraph 62-701.530(3)(b), F.A.C.

F. Financial Assurance and Cost Estimates

Financial Assurance and Cost Estimates requirements are not applicable to this Permit.

G. Closure Requirements

Closure requirements are not applicable to this Permit.

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H. Long Term Care Requirements

1. Long-Term Care Period. The Permittee shall continue to monitor and maintain the integrity and effectiveness of the final cover as well as other appurtenances of the Facility, control erosion, fill subsidence, comply with the ground water monitoring plan, maintain the stormwater system and the gas venting system, in accordance with an approved Post-Closure Care Plan.
2. Regular Inspections. Visual inspections of the Facility shall be conducted monthly and after each significant storm event. The site inspections shall be documented using the Post-Closure Inspection Form, presented as ATTACHMENT 4 of this Permit.
3. Post-Closure Care Plan. Pursuant to paragraph 62-701.320(10)(b), F.A.C., the Post-Closure Care Plan and the Closure Plan shall be updated and submitted to the Department to reflect changes in closure design and long-term care requirements at fifth year of the Permit, by December 31, 2026, and at the time of Permit renewal. A tracked change copy of the Post-Closure Care Plan and the Closure Plan (i.e., all additions are underlined (e.g., added) and all deletions are struck through (e.g., deleted) should be provided to better enable to determine if a permit modification is warranted. Additionally, the submittal should make a positive statement that all revisions have been tracked in the aforementioned way. A copy of the approved Post-Closure Care Plan, including the operating record as defined in subsection 62-701.500(3) F.A.C., shall be kept at the West Nassau Landfill's office and shall be available for review by representatives of the Department upon request.
4. Stabilization Report. Every five years after issuance of this Permit (i.e., by December 31, 2026 and at the time of the Permit renewal), the Permittee shall submit a report to the Department that addresses stabilization of the Facility. The submittal shall include the technical report required in paragraph 62-701.510(8)(b), F.A.C., and shall also address subsidence, barrier layer effectiveness, storm water management, and gas venting system.
5. Contingency Plan and Notification of Emergencies. The Permittee shall notify the Department in accordance with the approved Contingency Plan. Notification shall be made to the Department's Northeast District at 904.256.1700.
6. Final Certification. Following completion of the Long-Term Care period, the owner or operator shall submit to the Department a certification, signed and sealed by a professional engineer, verifying that Long-Term Care has been completed in accordance with the Closure Plan has been placed in the operating record.

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Executed in Duval County, Florida

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

A handwritten signature in black ink, appearing to read "Michelle Neeley". The signature is fluid and cursive, with a large loop at the end.

Michelle Neeley
Environmental Manager

APPENDIX 1

General Conditions

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 403.141, 403.161, 403.727, or 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of rights, nor any infringement of federal, State, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in this permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:
 - (a) Have access to and copy any records that must be kept under conditions of the permit;
 - (b) Inspect the facility, equipment, practices, or operations regulated or required under this permit; and

APPENDIX 1

- (c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules. Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

- (a) A description of and cause of noncompliance; and
(b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit or a copy thereof shall be kept at the work site of the permitted activity.

12. The permittee shall comply with the following:

- (a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

(b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

- (c) Records of monitoring information shall include:

APPENDIX 1

1. the date, exact place, and time of sampling or measurements;
2. the person responsible for performing the sampling or measurements;
3. the dates analyses were performed;
4. the person responsible for performing the analyses;
5. the analytical techniques or methods used;
6. the results of such analyses.

13. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

APPENDIX 2**Approved Application Documents**

The following Documents were provided with the permit renewal application (DEP File Number 64999-010).

Document 1 – *Renewal Application for the Existing Long-Term Care Permit, Lofton Creek Landfill, Nassau County, Florida*, prepared by S2L, Incorporated, signed and sealed by Omar E. Smith, P.E., dated December 3 and received December 14, 2021.

Document 2 – *Nassau County - Lofton Creek Landfill - WACS ID NO. 37138 - LTC Permit Renewal Application*, Revised Lofton Creek Landfill LTC Plan, prepared by S2L, Incorporated, submitted by Omar E. Smith, P.E. on December 16, 2021.

Document 3 – *Nassau County - Lofton Creek Landfill - WACS ID NO. 37138 - LTC Permit Renewal Application*, Revised Engineering Report, prepared by S2L, Incorporated, submitted by Omar E. Smith, P.E. on December 16, 2021.

APPENDIX 3 Water Quality Monitoring Plan

1. **Groundwater Monitoring.** In accordance with Rules 62-701.510 and 62-520.600, F.A.C., the Permittee shall install, place into operation, and maintain a groundwater quality monitoring system.
 - a. General Requirements. The Permittee shall construct new wells, operate and maintain the groundwater monitoring system, and abandon wells in accordance with Chapters 62-520 and 62-701, F.A.C., and with the approved Groundwater Monitoring Plan and modifications on file with the Department, and as modified by the conditions specified therein.
 - b. Zone of Discharge. The Zone of Discharge (ZOD) for the facility shall be a three dimensional volume that extends horizontally from the permitted edge of the solid waste disposal unit a distance of 100 feet, or to the property boundary; or to the shortest distance between the location of the detection monitoring wells and the solid waste disposal unit; whichever is less; and extends vertically from the top of the ground to the base of the surficial aquifer.
 - c. Class G-II Requirements. Pursuant to Rule 62-520.420, F.A.C., the Permittee shall ensure that the water quality standards for Class G-II groundwater shall not be exceeded at the boundary of the ZOD.
 - d. Minimum Criteria. The Permittee shall ensure that the minimum criteria for groundwater specified in Rule 62-520.400, F.A.C., are not violated within the ZOD.
 - e. Monitoring Plan. The Groundwater Monitoring Plan consists of the following wells and piezometers (whose locations and identifications shall be in accordance with Appendix 3.1):

Background Wells: Well Cluster* MW-1s, i
Well Cluster* MW-13s, i

Detection Wells: Well MW-3s
Well Cluster* MW-4s, i
Well MW-5s
Well MW-6s
Well Cluster* MW-7s, i
Well Cluster* MW-9s, i
Well Cluster* MW-10s, i

Compliance Wells: Well Cluster* MW-15s, i
Well Cluster* MW-18s, i

Piezometers: Well Cluster* MW-21s, i, d
Well Cluster* MW-22s, i, d
Well Cluster* MW-23s, i, d
Well Cluster* MW-25s, i, d

APPENDIX 3 Water Quality Monitoring Plan

(*) Well clusters to consist of shallow (s), intermediate (i), and deep (d) screen interval wells

If monitoring parameters are detected in detection wells in concentrations that are significantly above background water quality, or that are at levels above groundwater standards or criteria, evaluation monitoring shall be initiated within 90 days of notification by DEP pursuant to Rule 62-701.510(7), F.A.C. including, but not limited to, the installation and sampling of compliance wells associated with the affected detection well(s).

- f. New Well Requirements. The Permittee shall submit, the following information to DEP within 15 days of completion of construction of any new groundwater monitoring well(s) (permanent and temporary):

Well identification	Driller's Lithologic Log
Latitude/Longitude	Total well depth
Aquifer monitored	Casing diameter
Screen type and slot size	Casing type and length
Elevation at top of pipe	Well construction permit number
Elevation at land surface	Depth to groundwater

New groundwater monitoring wells shall be designed and constructed in accordance with Chapter 62-520, F.A.C., and ASTM Standard D-5092. A surveyed drawing shall be submitted showing the horizontal location of all monitoring wells by metes and bounds or equivalent surveying techniques. The surveyed drawing shall include the monitoring well identification number as well as the location and elevation of all permanent benchmark(s) and/or corner monument marker(s) at the site. The survey shall be conducted by a Florida Licensed Professional Surveyor and Mapper.

Except for replacement well(s), the initial monitoring for the monitor wells, or any newly installed monitoring well(s) shall be sampled and those samples shall be analyzed for the parameters listed in APPENDIX 3.2, as required by Rule 62-701.510(7)(a), F.A.C., to establish background groundwater quality.

- g. Well Abandonment. Within 60 days of issuance of this Permit, all piezometers and wells not a part of the permit groundwater monitoring plan are to be plugged and abandoned in accordance with St. Johns River Water Management District Rule 40C-3.531. However, a written request for the abandonment of any piezometers or wells shall be submitted to DEP and written approval of the abandonment obtained prior to any abandonment. A written report documenting the plugging and abandonment activities shall be submitted to DEP within 30 days of field activities. All piezometers and wells not abandoned shall be properly maintained and routinely inspected in conjunction with the annual groundwater sampling.

APPENDIX 3

Water Quality Monitoring Plan

- h. Well Inspection Requirements. A visual inspection of wells and piezometers to assess visible damage shall be conducted in conjunction with the annual sampling events. All wells are to be clearly labeled and easily visible at all times. The well components at and above ground surface shall be constructed in a manner that secures and protects the groundwater monitoring wells. At each well location, construction shall include a concrete surface pad and above ground vertical protective casing with a locking cap. The casing and top shall be maintained in good working order, intact and locked. A minimum of two protective bollards shall be placed at the edges of the concrete surface pad. Bollards shall, at a minimum, be the approximate height of the protective casing and constructed of materials capable of providing protection from accidental impact with machinery.
- i. Damaged Well Requirements. In the event any monitoring well becomes damaged or inoperable, the Permittee shall notify DEP within 72 hours and shall submit a detailed written report within seven days. The written report shall detail the problem that has occurred and remedial measures that have been taken to prevent a recurrence. Damaged wells shall be repaired or replaced within 60 days. If a monitoring well is unable to be sampled during its normal time frame, it shall be sampled within 30 days of repair or replacement and its analysis shall be submitted to DEP within 60 days of repair or replacement. All monitoring well design and replacement shall be approved by DEP prior to installation.
- j. Groundwater Levels. Groundwater level measurements shall be collected annually from all monitoring wells as specified in Specific Condition 1.e. Elevation measurements, referenced to a consistent, nationally recognized datum, shall include groundwater surface elevation, the top of well casing, and land surface at each site at a precision of plus or minus 0.01 feet. A groundwater surface contour map shall be constructed by a professional geologist or qualified professional engineer, depicting the locations of wells and corresponding groundwater elevations. This information shall be submitted to the Department in conjunction with the annual groundwater monitoring report forms. In the event that the data indicates a variation in the horizontal or vertical flow directions such that existing wells are not adequate to intercept contaminants that may be generated from the Facility, the Permittee shall propose additional wells to correct that deficiency or the Department shall require wells to be installed to correct that deficiency.
- k. Sampling. All background, detection, and compliance groundwater monitoring wells shall be sampled and analyzed annually for the parameters listed in APPENDIX 3.3. The wells shall be sampled before June 30 during each year of this Permit. Compliance with groundwater standards and/or criteria shall be determined by analysis of unfiltered groundwater samples, unless the requirements of Rule 62-520.310(5) F.A.C., are satisfied. Additional samples, wells, and parameters may be required based upon subsequent analyses.

APPENDIX 3

Water Quality Monitoring Plan

The Permittee shall collect, analyze, report and retain sampling and monitoring data in accordance with F.A.C. Chapter 62-160 and Rule 62-520.600, F.A.C. Any laboratory test required by this Permit shall be performed by a laboratory that is certified by the Department of Health (DOH) under Chapter 64E-1, F.A.C., where such certification is required by Rule 62-160.300, F.A.C. The laboratory must be certified for all specific method/analyte combinations that are used to comply with this Permit. All field activities including on-site tests and sample collection, whether performed by a laboratory or another organization, must follow all applicable procedures described in DEP-SOP-001/01 (January 2017). Alternate field procedures and laboratory methods may be used if they have been approved according to the requirements of Rules 62-160.220 and 62-160.330, F.A.C. Minimum detection levels for all analytes shall be at or below groundwater standards and/or criteria for each analyte.

- i. Analytical Data Reports. The Permittee shall submit all groundwater sampling results on the Parameter Monitoring Report Form, Department Form 62-520.900(2), along with the analytical laboratory reports and a groundwater contour map no later than 60 days from completion of laboratory analysis. Analytical results shall be accompanied by a brief narrative summary, and the Permittee shall include Form 62-701.900(31) Water Quality Monitoring Certification with each report certifying that the laboratory results have been reviewed and approved by the Permittee. The Permittee shall retain the original forms so that the necessary information is available to properly complete future reports.

In addition to the information provided on the Parameter Monitoring Form:

- 1) The laboratory report shall indicate the method on each data sheet, the detection limits and the dilution factor;
 - 2) The report shall show, in columnar form, the analytical results and, where applicable, the corresponding Florida Groundwater Standards and/or criteria; and
 - 3) The report shall identify all peaks greater than the EPA specified detection limit for the analytical method.
- m. Exceedances. If parameters are detected in monitoring wells in concentrations that are significantly above background water quality, or that are at levels above the Department's water quality standards or criteria specified in Chapter 62-520, F.A.C., the Permittee may resample the wells within 30 days after the sampling data is received to confirm the data. Should the Permittee choose not to resample, the Department will consider the water quality analysis as representative of current groundwater conditions at the facility. If the data is confirmed, or if the Permittee chooses not to resample, the Permittee shall notify the Department in writing within 14 days of this finding.

APPENDIX 3

Water Quality Monitoring Plan

n. Report Submittals. Required water quality monitoring reports and all groundwater analytical results shall be submitted electronically as specified in APPENDIX 3.4. Water quality monitoring reports shall be submitted in Adobe pdf format. The water quality data Electronic Data Deliverable (EDD) shall be provided to the Department in an electronic format consistent with requirements for importing the data into the Department's databases. Water quality monitoring reports shall be signed and sealed by a Florida registered professional geologist or professional engineer with experience in hydrogeological investigations and shall include the following:

- 1) Cover letter;
- 2) Summary of exceedances and sampling problems, if any (e.g., variation from SOP field criteria);
- 3) Conclusions and recommendations;
- 4) Ground water contour maps;
- 5) Chain of custody forms;
- 6) Water levels, water elevation table;
- 7) Ground Water Monitoring Report Certification, using the appropriate Department form;
- 8) Appropriate sampling information on Form FD 9000-24 (DEP-SOP-July 30, 2014); and,
- 9) Laboratory and Field EDDs and error logs, as applicable.

All submittals in response to this specific condition shall be sent to the District Office and to:

Florida Department of Environmental Protection
Solid Waste Section, MS 4565
2600 Blair Stone Road
Tallahassee, Florida, 32399-2400

o. Technical Reports. The Permittee shall monitor site-specific conditions in addition to the data obtained from the ground and surface water monitoring systems. Every five years after issuance of this Permit (i.e., by December 31, 2026 and at the time of the Permit renewal), the Permittee shall submit a Technical Report to the Department, according to paragraph 62-701.510(8)(b), F.A.C. The Report shall contain, at a minimum, the following:

- 1) Tabular displays of any data that shows a monitoring parameter has been detected, and graphical displays of any detected leachate key indicator parameters (such as pH, specific conductance, TDS, TOC, sulfate, chloride, sodium, and iron), including hydrographs for all monitoring wells;
- 2) Trend analyses of any monitoring parameters consistently detected;
- 3) Comparisons among shallow, middle, and deep zone wells;
- 4) Comparisons between background water quality and the water quality in detection and compliance wells;

APPENDIX 3
Water Quality Monitoring Plan

- 5) Correlations between related parameters such as total dissolved solids and specific conductance;
- 6) Discussion of erratic and/or poorly correlated data;
- 7) An interpretation of the ground water contour maps, including an evaluation of ground water flow rates; and
- 8) An evaluation of the adequacy of the water quality monitoring frequency and sampling locations based upon site conditions.

The Report shall contain an evaluation of the groundwater monitoring program, and the adequacy of the monitoring frequency and analyses shall be determined. The Permittee shall have this report prepared, signed, and sealed by a professional geologist or qualified professional engineer.

- p. Monitoring Plan Amendments. Based on any information or data obtained after the effective date of this Permit, the Department reserves the right to modify the conditions set forth herein pursuant to the latest state Rules and regulations (before or after the effective date of this permit); and may modify the permit conditions to address additional groundwater assessment, additional monitoring wells and/or analytical parameters and compliance monitoring.

APPENDIX 3.1 Groundwater Monitoring Well Sample Locations



<p>The Colinas Group, Inc. 377 Maitland Blvd Suite 2012 Altamonte Springs, Florida 32701</p>	PROJ. NO.: P-602	<p>PROPOSED WATER QUALITY MONITORING LOCATIONS LOFTON CREEK CLOSED LANDFILL NASSAU COUNTY, FLORIDA</p>	<p>FIGURE 1A</p>
	DATE: NOVEMBER 2021		
	SCALE: 1" = 1000'		

APPENDIX 3.2
Initial Background Groundwater Parameters

Field Parameters

Static water level in wells before purging
Specified conductivity
pH
Dissolved oxygen
Turbidity
Temperature
Colors and sheens
(by observation)

Laboratory parameters

Total ammonia – N
Chlorides
Iron
Mercury
Nitrate
Sodium
Total dissolved solids (TDS)
Those parameters listed in 40 CFR Part
258 Appendix I & II

APPENDIX 3.3 Annual Groundwater Monitoring Parameters

Field Parameters

Static Water Levels
Specific Conductivity
pH
Dissolved Oxygen
Turbidity
Temperature
Colors and Sheens

Well ID	General Chemistry		Volatile Organic Compounds	
	Ammonia	Iron	Benzene	Vinyl Chloride
MW-1s	*	*		
MW-1i	*	*		
MW-3s	*	*		
MW-4s	*	*		
MW-4i	*	*		
MW-5s	*	*	*	
MW-6s	*	*		
MW-7s	*	*	*	
MW-7i	*	*	*	
MW-9s	*	*		*
MW-9i	*	*	*	
MW-10s	*	*		
MW-10i	*	*		*
MW-13s	*	*	*	*
MW-13i	*	*	*	*
MW-15s	*	*		
MW-15i	*	*		*
MW-18s	*	*		
MW-18i	*	*		

* Required analyte at each monitoring well

Background Monitoring Wells

APPENDIX 3.4**GUIDANCE FOR SUBMITTING ELECTRONIC WATER QUALITY
DATA TO THE SOLID & HAZARDOUS WASTE PROGRAMS
October 20, 2017****I. General Information**

Water quality monitoring reports and all groundwater, surface water, and leachate (when required) analytical results for the Solid & Hazardous Waste Programs shall be submitted to the Department electronically via email, FTP site, compact disc, or flash drive media readable by Microsoft Windows. Water quality monitoring reports shall be submitted in Adobe PDF format. Unless otherwise approved by the Department, the water quality Electronic Data Deliverable (EDD) shall be compatible with software called Florida DEP Automated Data Processing Tool (ADaPT). ADaPT has been developed to evaluate and upload water quality data into the Department's Water Assurance Compliance System (WACS) database. A copy of this ADaPT software with installation instructions and EDD specifications can be downloaded from the following website address: <https://www.floridadep.gov/waste/waste/content/adapt>

II. Monitoring Report

The groundwater monitoring report shall be submitted in Adobe PDF format, with the EDD as an attachment, and shall include the following items:

1. Cover letter;
2. Summary of exceedances and recommendations;
3. Groundwater contour maps;
4. Chain of custody forms;
5. Water levels, water elevation table;
6. Groundwater Monitoring Report Certification, using the appropriate Department form;
7. Appropriate sampling information on Form FD 9000-24 (DEP-SOP-001/01); and,
8. Laboratory EDDs and associated Lab EDD ErrorLogs, Field EDDs that are compatible with ADaPT software and ADaPT export file(s).

The monitoring report (including ADaPT EDDs) should be emailed to Tallahassee using the following email address: ADaPT.EDDs.and.Reports@dep.state.fl.us. Refer to Section III below for file nomenclature details.

Submit all ADaPT files in a single zip file named as follows: 12345_200811_sw1dd.zip
Submit the monitoring report in a single (text, no scanned content) PDF file named as follows:

12345_200811_swgwmr.pdf

Please do not submit multiple documents for the monitoring report; combine all documents in a single PDF document. Less preferable, zip these documents into a single zip file named as follows:

12345_200811_swgwmr.zip

Guidance for Electronic Water Quality Data Submittal for Solid & Hazardous Waste Programs
October 20, 2017

If attachments are too large to email, monitoring reports may also be transmitted to the FDEP Solid Waste program in Tallahassee using the following FTP site:

ftp://ftp.dep.state.fl.us/pub/WACS-ADaPT/EDDS_and_Reports

Note: When submitting files to the FTP site, please combine all ADaPT EDDs and the groundwater monitoring report into a single zip file (sw_12345_200811_gwmmr.zip). Please email us at ADaPT.EDDs.and.Reports@dep.state.fl.us informing us of what files were transmitted via FTP for which facility sampling event.

If you are unable to submit the groundwater monitoring report electronically via email or FTP, it can also be sent by regular mail to:

Florida Department of Environmental Protection
Northeast District Office
8800 Baymeadows Way West, Suite 100
Jacksonville, Florida 32256

And to:

Florida Department of Environmental Protection
Solid Waste Section, MS 4565
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Please see a list of District Office addresses at the end of this document.

III. ADaPT EDDs

The ADaPT EDD consists of two electronic deliverables: (1) a Laboratory EDD, identified as swldd.txt; and (2) a Field EDD identified as swfdd.txt

The Laboratory EDD shall be submitted in a comma separated (csv format) text file using the .txt filename extension. The Laboratory EDD file name format shall be: [WACS Facility I.D] underscore [Begin Sampling Year and Month (yyyymm)] underscore SWldd.txt. The period at the end would not be included. For example, with WACS Facility I.D. # 12345 where sampling started in November and ended in December of 2008, the Laboratory EDD file name should be: 12345_200811_swldd.txt

The Field EDD shall be submitted in the same comma separated (.csv format) text file as the Laboratory EDD. The Field EDD file name format shall be: [WACS Facility I.D.] underscore [Begin Sampling Year and Month (yyyymm)] underscore swfdd.txt. Again, the period at the end is not included. For example, with WACS Facility I.D. # 12345 where sampling started in November and ended in December of 2008, the file name should be: 12345_200811_swfdd.txt

Guidance for Electronic Water Quality Data Submittal for Solid & Hazardous Waste Programs
October 20, 2017

For confirmation sampling, add the term “_conf” to the EDD filenames as follows:
12345_200811_conf_swldd.txt for the Laboratory EDD or
12345_200811_conf_swfdd.txt for the Field EDD.

For radiochemistry results, add the term “_rad” similar to confirmation sampling indicated above.

IV. Signatures Required

Water quality monitoring reports shall be signed and sealed by a Florida registered professional geologist or professional engineer with experience in hydrogeological investigations. An electronic signed and sealed signature page may be submitted with the report provided a stamped seal is used. If a raised seal is used, ensure that the seal is legible (gray the embossed seal and scan). Otherwise, you must separately mail the signed and sealed page.

V. Process Required

Three steps are generally required. First, the Laboratory EDD, in comma separated text format, must be submitted by the laboratory. In order to validate the QA/QC aspects of the Laboratory EDD, the permittee shall ensure the laboratory processes the Laboratory EDD through ADaPT using both their laboratory specific library and the Department's Division of Waste Management Master library and corrects all critical errors and explains all non-critical errors prior to submittal. Second, the appropriate entity (laboratory, consultant, or permittee) shall process the Field EDD through ADaPT and correct all Field EDD errors prior to submittal. Finally, as a completeness check, the laboratory, permittee or consultant shall process both the Laboratory EDD and the Field EDD through ADaPT and confirm a successful export to disk and submit the ADaPT generated export file (ADaPTYYYYYMMDDHHMMSS.txt).

VI. Resources

In the event help is needed to prepare these EDDs, you can contact Clark Moore, clark.b.moore@dep.state.fl.us, (850) 245-8739 or by emailing ADaPT.EDDs.and.Reports@dep.state.fl.us

If monitoring testsite information needs updating in the WACS Oracle database, or if you need help in submitting the groundwater monitoring report, please contact the Department's Solid Waste staff at the appropriate District office:

Northwest District Office
160 Governmental Center, Suite 308
Pensacola, Florida 32502
(850) 595-8300

Guidance for Electronic Water Quality Data Submittal for Solid & Hazardous Waste Programs
October 20, 2017

Northeast District Office
8800 Baymeadows Way West, Suite 100
Jacksonville, FL 32256
(904) 256-1700

Central District Office
3319 Maguire Boulevard, Suite 232
Orlando, FL 32803
(407) 897-4100

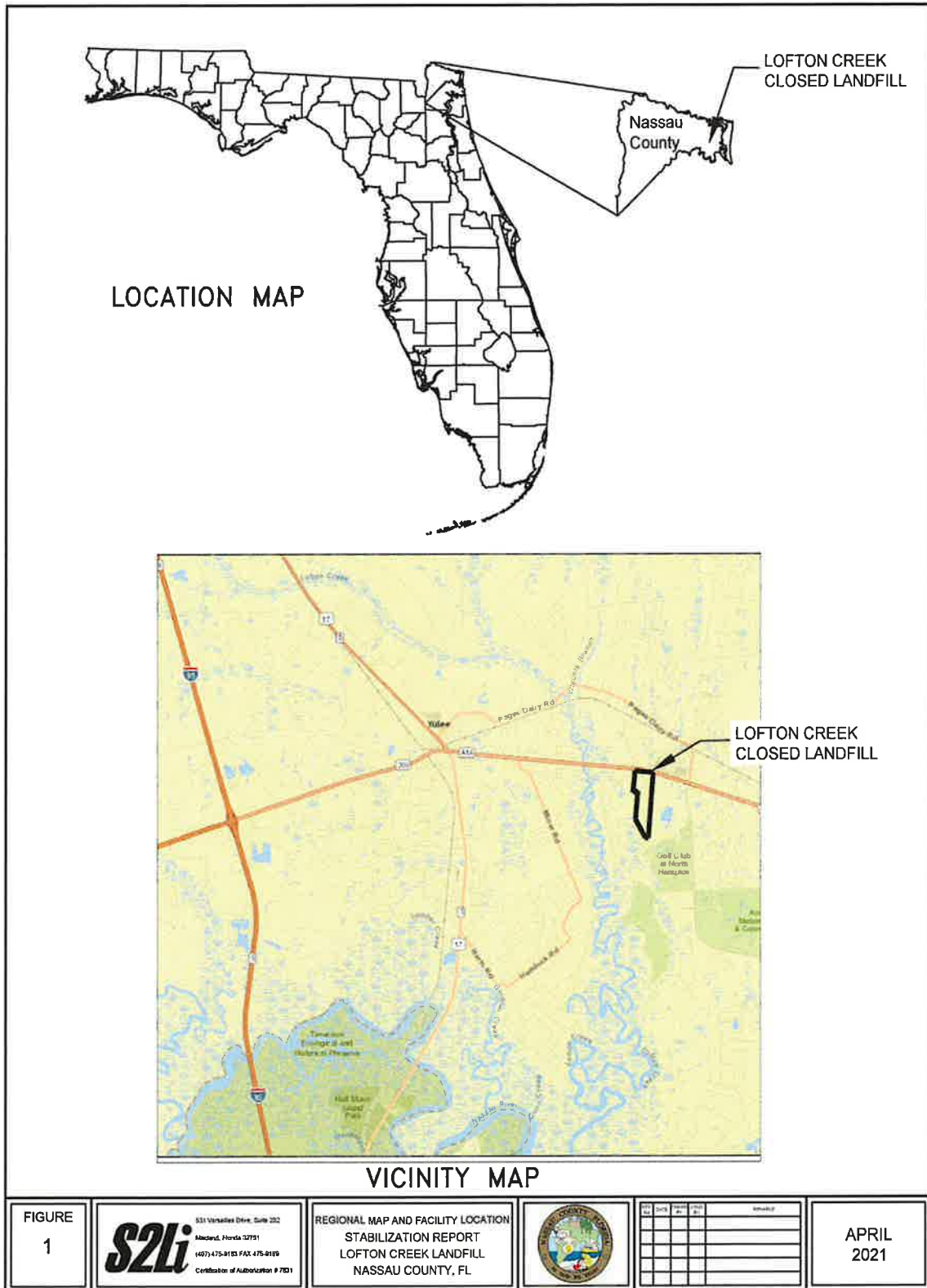
Southwest District Office
13051 N. Telecom Parkway
Temple Terrace, Florida 33637
(813) 470-5700

Southeast District Office
3301 Gun Club Road, MSC7210-1
West Palm Beach, Florida 33406
(561) 681-6600

South District Office
P.O. Box 2549
2295 Victoria Avenue, Suite 364
Fort Myers, Florida 33902
(239) 344-5600

ATTACHMENT 1

VICINITY MAP

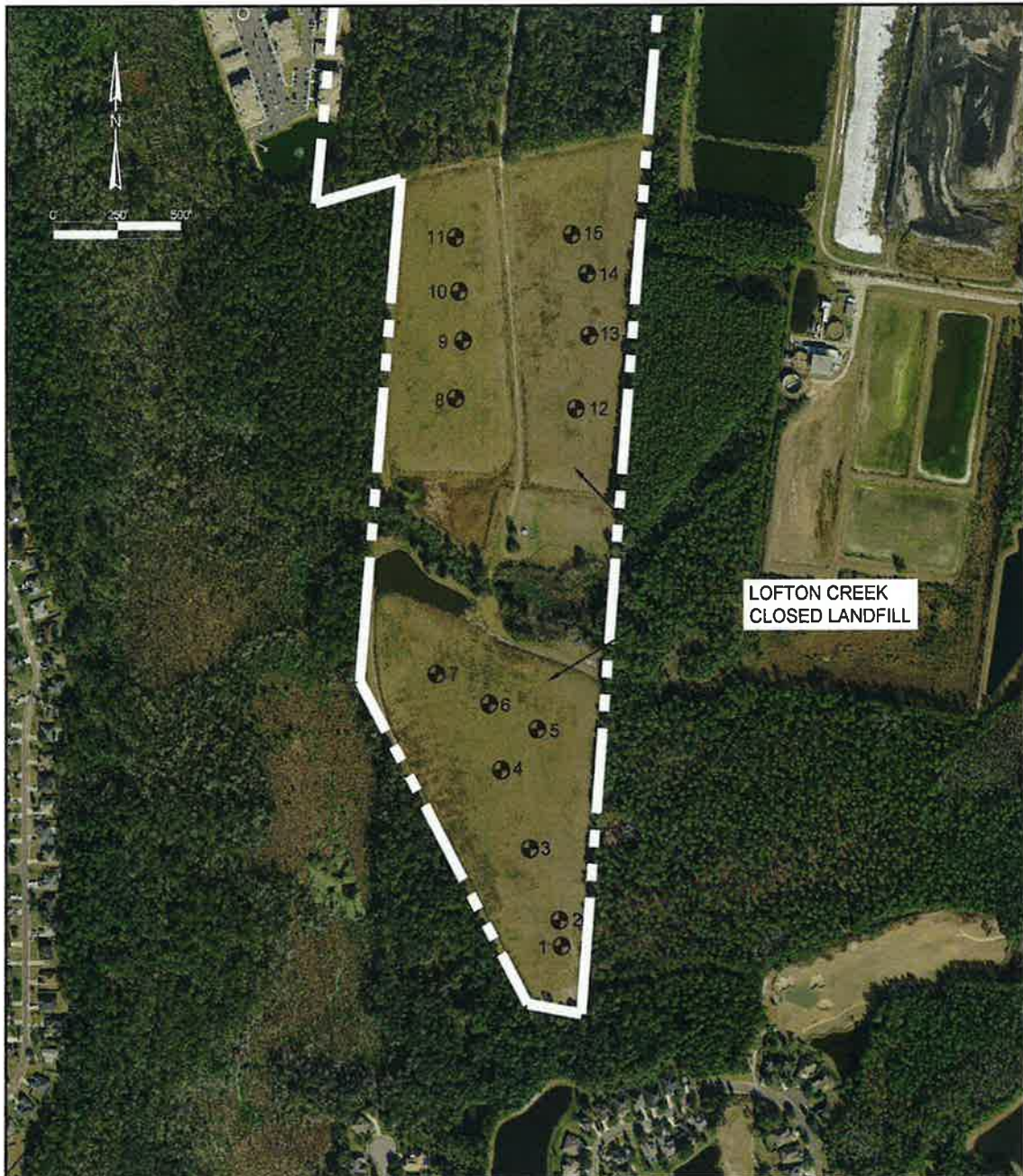


ATTACHMENT 2

SITE PLAN



ATTACHMENT 3 Passive Gas Venting Well Locations



NOTES:
1. AERIAL PHOTOGRAPH TAKEN FROM FOOT APLUS DATABASE,
FLIGHT DATE: JANUARY 2017 (MOST RECENT AVAILABLE)

16 PASSIVE GAS VENTS
APPROXIMATE LOCATION

FIGURE 4	 <small>531 Vero Beach Drive, Suite 202 Maitland, Florida 32751 (407) 475-8143 FAX: 475-8188 Certification of Accreditation # 7801</small>	PASSIVE GAS VENT LOCATIONS STABILIZATION REPORT LOFTON CREEK LANDFILL NASSAU COUNTY, FL		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="font-size: 8px;">DATE</td> <td style="font-size: 8px;">TIME</td> <td style="font-size: 8px;">DRAWN BY</td> <td style="font-size: 8px;">CHECKED BY</td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>	DATE	TIME	DRAWN BY	CHECKED BY													APRIL 2021
DATE	TIME	DRAWN BY	CHECKED BY																		

\\fileserver\data\working files\drawing set\Nassau County\Lofton Creek\Lofton Creek SITE PLAN.dwg Mar 30, 2021 - 11:10 am

ATTACHMENT 4 Post -Closure Inspection Form

Table 1: Post-Closure Inspection Form (Page 1 of 3)

LANDFILL: Lofton Creek OWNER: Nassau County					
Observation Report Number: _____			Date of Observation: ___/___/___		
Time Arrived Onsite: _____			Time Departed Site: _____		
Field Personnel: _____					
	YES (1)	NO	NOT OBSERVED	APPROXIMATE TIME PERIOD FOR CORRECTION (2)	COMMENT NO.
Section A: Site Security					
1. Entry sign damaged or missing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
2. Any corrosion or damage to perimeter fence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
3. Any damage to gates and locks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
Section B: Roads					
1. Access compromised by road conditions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
2. Perimeter road compromised by road conditions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
Section C: Final Cover System					
1. Evidence of settlement or ponding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
2. Evidence of erosion, cracks, or gullies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
3. Evidence of erosion or sedimentation of sideslope runoff control terraces	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
4. Inadequate or stressed grass cover	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	45 days	_____
5. Grass height greater than 18 inches	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
6. Growth of damaging weeds or saplings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
7. Evidence of leachate release	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
8. Geomembrane liner impact	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
a. Notify FDEP	<input type="checkbox"/>			72 hours	_____
b. Provide written report to FDEP	<input type="checkbox"/>			7 days	_____
Section D: Drainage Flumes					
1. Blockage at entrance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7 days	_____
2. Settlement of the channel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
3. Damage/cracks in channel lining	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
4. Settlement or Movement of the inlets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
5. Excessive silting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
(1) If yes, assign a comment number and see Page 3 for instructions. (2) Approximate number of days from detection for correction of the inspection item.					
Signature of Observer: _____			Date of Observation: ___/___/___		

ATTACHMENT 4 Post -Closure Inspection Form

Table 1: Post-Closure Inspection Form (Page 2 of 3)

LANDFILL: Lofton Creek OWNER: Nassau County					
Observation Report Number: _____			Date of Observation: ___/___/___		
	YES (1)	NO	NOT OBSERVED	APPROXIMATE TIME PERIOD FOR CORRECTION (2)	COMMENT NO.
Section E: Perimeter Drainage System					
1. Sloughing of ditch slopes or berms ditches, impairment of flow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
2. Damaged/malfunctioning detention ponds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
3. Erosion of ditch slopes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
4. Vegetation height greater than 18 inches	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
5. Blockage or obstructions in discharge structures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
6. Pondered water or impairment of flow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
7. Problems associated with silting, sediment level	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
Section F: Gas Vents					
1. Visible damage to system components	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	60 days	_____
2. Blockage in pipes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	60 days	_____
3. Local settlement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	60 days	_____
Section G: Groundwater Monitoring Wells					
1. Protective casing missing or damaged	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	60 days	_____
2. Concrete pads damaged or cracked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	60 days	_____
3. Wells unlocked, locks missing, damaged or inoperable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	60 days	_____
a. Notify FDEP (if damaged or inoperable)	<input type="checkbox"/>			Immediately In Writing	_____
Section H: Limits of Waste Monuments					
1. Monuments in unacceptable condition and/or not visual	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 Days	_____
2. Limit of waste markers, damaged or missing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 Days	_____
(1) If yes, assign a comment number and see Page 3 for instructions. (2) Approximate number of days from detection for correction of the inspection item.					
Signature of Observer: _____			Date of Observation: ___/___/___		

ATTACHMENT 4 Post -Closure Inspection Form

Table 1: Post-Closure Inspection Form (Page 3 of 3)

LANDFILL: Lofton Creek OWNER: Nassau County	
Observation Report Number: _____ Date of Observation: __/__/__	
INSTRUCTIONS If any item is checked yes, provide details of the problem and remediation or maintenance recommendations below.	
COMMENT NUMBER	COMMENT
_____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____	_____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____
COMMENT NUMBER	CORRECTIVE ACTION PERFORMED
_____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____	_____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____
Signature of Observer: _____ Date of Observation: __/__/__	

APPENDIX C

LOFTON CREEK LANDFILL POST-CLOSURE CARE PLAN

TABLE OF CONTENTS

SECTION

- 1 General
- 2 Access Requirements
- 3 Ownership Provisions
- 4 Maintenance and Monitoring Provisions
 - 4.1 General
 - 4.2 Inspection and Maintenance Frequency Record Keeping
- 5 Post-Closure Care Activities
 - 5.1 Site Security
 - 5.2 Access Roads
 - 5.3 Final Cover System
 - 5.4 Stormwater Drainage Structures
 - 5.5 Perimeter Drainage System
 - 5.6 Gas Vents
 - 5.7 Monitor Wells
- 6 Post-Closure Site Monitoring
- 7 Stabilization Report
- 8 Post-Closure Care Certification

LIST OF TABLES

TABLE 1 Post-Closure Inspection Form

Emergency Contacts and Notification

Emergency Contacts:

- Whenever a person is hurt or endangered, immediately contact fire rescue or police at **911**, then County personnel listed below.
- Whenever a serious problem occurs at the Landfill, including a fire or another emergency that poses an unanticipated threat to the public health or the environment, immediate notification is required by telephone to the following:

County Personnel: Lynn Diden, Landfill Foreman: **904-530-6701**
Nassau County Public Works Director: **904-530-6225**

FDEP: During regular business hours, notification shall be made to the District at **904.256.1700**. If an emergency occurs outside regular business hours, then telephone the 24-hour emergency phone number **800.320.0519**. This latter number is to be used for emergencies only.

Written Notification:

FDEP: Within seven days of emergencies, the County shall submit a written report to FDEP explaining the extent of the problem, its cause, and what actions have been or will be taken to correct it, and prevent its recurrence.

LOFTON CREEK LANDFILL POST-CLOSURE CARE PLAN

1.0 GENERAL

The Post-Closure Care Plan (Plan) was developed to describe the necessary regulatory Long-Term Care (LTC) inspections and maintenance activities at the Closed Lofton Creek Landfill. These activities were designed to ensure the continued integrity of the site and to minimize potential threat to human health and the environment following final closure and during the LTC period. The inspection of the facility utilizing the form within the Plan is to be conducted monthly and after any major storm event.

Nassau County will provide post-closure care and maintenance during the term of the regulatory LTC period. The post-closure care periods may be extended in accordance with Chapter 62-701.620(1), F.A.C., or reduced in accordance with Chapter 62-701.620 (3), F.A.C.

2.0 ACCESS REQUIREMENTS

Nassau County will retain the right of entry to the landfill property during the post-closure care period in accordance with Chapter 62-701.620(7), F.A.C.

3.0 OWNERSHIP PROVISIONS

If the landfill permit is transferred from Nassau County to an individual or company, the transfer of the permit will be in accordance with Chapter 62-701.320(11), F.A.C.

4.0 MAINTENANCE AND MONITORING PROVISIONS

4.1 General

Nassau County will provide post-closure inspections and maintenance of the site and take responsibility to ensure that the site will not pose a threat to human health or the environment for the regulatory LTC period.

During the LTC period, the Nassau County Public Works Director or designated representative will be the official contact person responsible for the post-closure care. Copies of all relevant records and documents, including the Post-Closure Care Plan will be available at the Solid Waste Management offices located at West Nassau Landfill, 46026 Landfill Road, Callahan, Florida 32011. The Nassau County Public Works Director or designated representative will be directly responsible for ensuring that all post-closure inspections and maintenance activities are completed. Post-closure care will include regularly scheduled and unscheduled programs to inspect and maintain the access roads, security fences, final cover system, stormwater drainage system, gas vents, and the monitor well network.

4.2 Inspection and Maintenance Frequency Record Keeping

During the post-closure care period, inspections will be performed by the County as required by the specific conditions of the permit. Ongoing maintenance activities, such as grass cutting, will be performed on a regular schedule throughout the post-closure care period.

Nassau County will maintain a record of each inspection made of the closed site during the LTC period. A Post-Closure Inspection Form, for documenting the inspections, is presented as Table 1. The inspector and date of inspection will be indicated for each record. In addition, each record will indicate whether any deficiencies or problems were observed during site inspection and will describe the corrective action taken. The inspector is also aware that any observed damage to the monitoring wells or liner system requires a time sensitive notification to FDEP in accordance with the requirements of the specific conditions for the permit. These records will be available for review by representatives of the FDEP upon request. These records will be archived by the Solid Waste Department office for at least three years following the end of the regulatory LTC period.

Approximate times for repair of deficiencies observed during post-closure care inspections have been indicated on the Post-Closure Inspection Form. However, performance of the repairs will depend on weather, site conditions, subcontractor scheduling, regulatory requirements, etc. Space is provided on the form to enter the date corrective action is completed. The actual Post-Closure Inspection Form format may change, as experience indicates, but the basic functions will remain the same.

Activities necessary for inspection, maintenance, and repair of the various components of the landfill are described in the following sections. All maintenance activities, except those requiring regular, ongoing care will be conducted in response to deficiencies identified during inspection visits.

5.0 POST-CLOSURE CARE ACTIVITIES

5.1 Site Security

5.1.1 Site Security Inspection

The landfill site will be inspected for indications of unauthorized access. Any signs of unauthorized access will be recorded on the inspection form and brought to the attention of the Nassau County Public Works Director so that corrective measures may be taken.

5.1.2 Site Security Maintenance

Maintenance activities will include repairing damage to gates and fencing.

5.2 Access Roads

5.2.1 Access Road Inspection

Access roads will be maintained to provide site access for regularly scheduled inspections, periodic maintenance, and site monitoring activities. Inspections of the access roads will include evaluating their ability to provide reasonable safety for 2-wheel drive vehicles.

5.2.2 Access Road Maintenance

Maintenance of the access roads will consist of repairing potholes and washouts and periodically regrading the road.

5.3 Final Cover System

5.3.1 Final Cover System Inspection

The final cover system (FCS) is designed to provide a stable surface, which will minimize damage to the FCS components, minimize leachate generation, and minimize exposure of waste. Regular inspections of the FCS require walking the perimeter of the landfill and making visual observations of the following:

1. The condition of the FCS to determine if settlement or ponding has occurred;
2. The condition of the FCS to determine if erosion, cracks, or gullies have occurred;
3. The condition of the sideslope runoff control terraces to determine if erosion or sedimentation have occurred;
4. The condition of the grassed FCS to determine inadequate growth of grass or if stressed grass exists;
5. The grass height on the FCS to determine whether mowing is required;
6. The presence of weeds or sprouting saplings which may develop root systems capable of compromising the grass cover or the underlying protective layers;
7. Evidence of leachate release from sideslopes; and
8. Damage to the geomembrane of the FCS.

5.3.2 Settlement of FCS

Regular field observations and, if required, periodic topographic surveys will be performed to check the condition or slope of the FCS. Field measurements will be performed if visual observations indicate localized settlement within a 20-ft diameter area. Measurements will be performed using a rigid board or pole which is at least 20-ft long and spans the area of settlement. Vertical settlement in this area will be measured as the perpendicular distance from the base of the reference board to the ground surface at the point of maximum subsidence. This measurement will be made using a ruler or tape accurate to 1/4 inch.

Settlement of less than 6 inches in any 20-ft diameter area will be considered minor settlement. The maintenance actions taken to correct minor settlement are described in Section 5.3.3. Settlement greater than 6 inches in any 20-ft diameter area will be considered major settlement. Occurrence of major settlement will require evaluation by a Florida Registered Professional Engineer specializing in geotechnical engineering. This evaluation will serve to distinguish whether the subsidence has been caused by structural settlement of the fill or by settlement of FCS components.

5.3.3 Final Cover System Maintenance

Maintenance tasks associated with repairing the FCS will be performed to maintain the integrity of the FCS components. Maintenance activities may include the following:

1. Minor settlement of the FCS will be repaired by refilling and compacting topsoil in the area of subsidence, regrading the area to the design contours, and reseeding to encourage grass growth;
2. Major settlement of the FCS will be evaluated by a Florida Registered Professional Engineer to determine appropriate corrective action;

3. FCS soil or side slope runoff terrace erosion, cracks, or gullies will be repaired by refilling the areas of soil loss with topsoil to maintain the required configuration. Repaired areas will be reseeded, fertilized, and watered to encourage grass growth;
4. To facilitate adequate growth, the grass will be watered, as needed, based on local conditions and practices. Fertilizers and pesticides will be applied, as needed, and weeding will be performed on a regular basis;
5. The grass cover on the cap will be mowed when grass height exceeds 18 inches;
6. Damaging weeds or saplings will be removed;
7. Leachate seeps will be evaluated by a Florida Registered Professional Engineer to determine appropriate corrective action; and
8. Observed geomembrane damage will be repaired under the observation of a third party providing quality assurance to the project and shall be certified acceptable by a Florida Registered Professional Engineer.

5.4 Stormwater Drainage Structures

5.4.1 Drainage Structures Inspection

The drainage piping and lined flumes are designed to convey stormwater runoff from the landfill top slopes, to the perimeter ditch system, and then to the stormwater detention/retention basins.

Inspection of the drainage flumes will require monitoring for the following:

- Presence of obstructions in the flow paths;
- Presence of obstructions in the collection basins;
- Settlement or movement of the inlets;
- Settlement of the channel; and
- Cracks and other damage in the channel lining.

5.4.2 Drainage Structure Maintenance

If materials accumulate in the drainage pipes or flumes and obstruct the flow path, these materials must be removed. Development of settlement or cracks in the drainage structures will require consultation with a Florida Registered Professional Engineer to determine an appropriate method of repair.

5.5 Perimeter Drainage System

5.5.1 Perimeter Drainage System Inspection

The perimeter drainage system is designed to control and direct the flow of surface water away from the landfill slopes. Inspection of the perimeter ditches and berms requires walking their lengths and making visual observations of the following:

1. Sloughing or erosion of ditch slopes or outer berms;
2. Ponded water or impairment of flow;
3. Condition of the detention/retention ponds;
4. Excessive sedimentation in detention/retention ponds;
5. Blockage or obstructions in the discharge structures;
6. Settlement of ditch bottoms; and
7. Excessive growth of vegetation.

5.5.2 Perimeter Drainage System Maintenance

Maintenance tasks associated with repairing the perimeter ditch system include the following:

1. Sloughed berms and eroded ditch slopes will be repaired by filling these areas with soil then seeding, fertilizing, and watering to encourage vegetative growth;
2. Sediment deposits in the ditches will be removed and the ditches will be regraded and grassed;
3. Obstructions that impede flow in the pond discharge structures will be cleared or removed;
4. Impairment of flow caused by settlement beneath the ditch will be corrected by filling the area and grassing; and
5. Damaged or malfunctioning detention/retention ponds will be repaired according to the recommendations of a Florida Registered Professional Engineer.

5.6 Gas Vents

5.6.1 Gas Vents Inspection

Passive gas vents have been installed to allow the release of landfill gas. The gas venting system will be checked at the time of cover inspection to ensure that the vents are free of obstruction and operating properly. Each vent pipe will be visually observed for the following:

1. Cracks;
2. Bending or breakage;
3. Blockage of flow; and
4. Excessive odor release.

5.6.2 Gas Vents Maintenance

Repair of the gas vent pipes for cracks, breaks, or bending above the FCS will require removal and replacement of the damaged section. Materials causing blockage in the gas flow path will be removed. Problems such as excessive odor release and pipe damage existing below the FCS will be addressed according to the recommendations of a Florida Registered Professional Engineer.

5.7 Monitor Wells

5.7.1 Well Inspection

Visual examinations will be made of each monitor well to assess the following:

1. Integrity of the padlocks for the groundwater monitoring well;
2. Condition of the groundwater monitoring well protective casing; and
3. Condition of the groundwater monitoring well concrete pad.

The FDEP will be immediately notified if monitor wells are not functional or if monitor wells have been destroyed. The monitor well will be repaired or replaced within 60 days of the inspection or within the FDEP specified time period.

5.7.2 Monitor Well Maintenance

Minor repairs of the monitor wells may include replacement of related damaged or missing padlocks, guard posts, and concrete pads. Cracks in the concrete pads greater than 1/4-inch wide will be repaired with patching mortar. If the protective casings are damaged or cracked, a Florida Registered Professional Engineer or Florida Registered Professional Geologist will be consulted to evaluate the need for additional corrective action.

6.0 Post-Closure Site Monitoring

Annual groundwater activities will be performed during the post-closure care period or as required by the specific conditions of the permit. All post-closure monitoring activities, including sampling, laboratory analysis, reporting, and the FDEP notification will be performed in accordance with the Water Quality Monitoring Plan.

7.0 Stabilization Report

Every five years, the County will submit a Stabilization Report to FDEP that addresses stabilization of the Landfill. The Stabilization Report will be prepared in accordance with Chapter 62-701.620(6) and submitted to the Department. The submittal shall include the water quality technical report required in paragraph 62-701.510(8)(b), F.A.C.

8.0 Post-Closure Care Certification

At the end of the LTC period, certification will be submitted to the FDEP indicating that the LTC activities have been completed in accordance with the Long-Term Care Plan and Chapter 62-701.620(9) F.A.C. This certification will be prepared and submitted by an independent Florida Registered Professional Engineer.

Table 1: Post-Closure Inspection Form (Page 1 of 3)

LANDFILL: Lofton Creek OWNER: Nassau County					
Observation Report Number: _____			Date of Observation: ___ / ___ / ___		
Time Arrived Onsite: _____			Time Departed Site: _____		
Field Personnel: _____					
	YES (1)	NO	NOT OBSERVED	APPROXIMATE TIME PERIOD FOR CORRECTION (2)	COMMENT NO.
Section A: Site Security					
1. Entry sign damaged or missing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
2. Any corrosion or damage to perimeter fence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
3. Any damage to gates and locks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
Section B: Roads					
1. Access compromised by road conditions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
2. Perimeter road compromised by road conditions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
Section C: Final Cover System					
1. Evidence of settlement or ponding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
2. Evidence of erosion, cracks, or gullies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
3. Evidence of erosion or sedimentation of sideslope runoff control terraces	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
4. Inadequate or stressed grass cover	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	45 days	_____
5. Grass height greater than 18 inches	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
6. Growth of damaging weeds or saplings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
7. Evidence of leachate release	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
8. Geomembrane liner impact	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
a. Notify FDEP	<input type="checkbox"/>			72 hours	_____
b. Provide written report to FDEP	<input type="checkbox"/>			7 days	_____
Section D: Drainage Flumes					
1. Blockage at entrance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7 days	_____
2. Settlement of the channel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
3. Damage/cracks in channel lining	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
4. Settlement or Movement of the inlets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
5. Excessive silting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
(1) If yes, assign a comment number and see Page 3 for instructions.					
(2) Approximate number of days from detection for correction of the inspection item.					
Signature of Observer: _____			Date of Observation: ___ / ___ / ___		

Table 1: Post-Closure Inspection Form (Page 2 of 3)

LANDFILL: Lofton Creek OWNER: Nassau County					
Observation Report Number: _____			Date of Observation: ____/____/____		
	YES (1)	NO	NOT OBSERVED	APPROXIMATE TIME PERIOD FOR CORRECTION (2)	COMMENT NO.
Section E: Perimeter Drainage System					
1. Sloughing of ditch slopes or berms ditches, impairment of flow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
2. Damaged/malfunctioning detention ponds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
3. Erosion of ditch slopes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
4. Vegetation height greater than 18 inches	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
5. Blockage or obstructions in discharge structures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
6. Poned water or impairment of flow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
7. Problems associated with silting, sediment level	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
Section F: Gas Vents					
1. Visible damage to system components	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	60 days	_____
2. Blockage in pipes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	60 days	_____
3. Local settlement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	60 days	_____
Section G: Groundwater Monitoring Wells					
1. Protective casing missing or damaged	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	60 days	_____
2. Concrete pads damaged or cracked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	60 days	_____
3. Wells unlocked, locks missing, damaged or inoperable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	60 days	_____
a. Notify FDEP (if damaged or inoperable)	<input type="checkbox"/>			Immediately In Writing	_____
Section H: Limits of Waste Monuments					
1. Monuments in unacceptable condition and/or not visual	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 Days	_____
2. Limit of waste markers, damaged or missing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 Days	_____
(1) If yes, assign a comment number and see Page 3 for instructions. (2) Approximate number of days from detection for correction of the inspection item.					
Signature of Observer: : _____			Date of Observation: ____/____/____		

APPENDIX C

LOFTON CREEK LANDFILL POST-CLOSURE CARE PLAN

TABLE OF CONTENTS

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- 1 General
- 2 Access Requirements
- 3 Ownership Provisions
- 4 Maintenance and Monitoring Provisions
 - 4.1 General
 - 4.2 Inspection and Maintenance Frequency Record Keeping
- 5 Post-Closure Care Activities
 - 5.1 Site Security
 - 5.2 Access Roads
 - 5.3 Final Cover System
 - 5.4 Stormwater Drainage Structures
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 - 5.6 Gas Vents
 - 5.7 Monitor Wells
- 6 Post-Closure Site Monitoring
- 7 Stabilization Report
- 8 Post-Closure Care Certification

LIST OF TABLES

TABLE 1 Post-Closure Inspection Form

Emergency Contacts and Notification

Emergency Contacts:

- Whenever a person is hurt or endangered, immediately contact fire rescue or police at **911**, then County personnel listed below.
- Whenever a serious problem occurs at the Landfill, including a fire or another emergency that poses an unanticipated threat to the public health or the environment, immediate notification is required by telephone to the following:

County Personnel: Lynn Diden, Landfill Foreman: **904-530-6701**
Nassau County Public Works Director: **904-530-6225**

FDEP: During regular business hours, notification shall be made to the District at **904.256.1700**. If an emergency occurs outside regular business hours, then telephone the 24-hour emergency phone number **800.320.0519**. This latter number is to be used for emergencies only.

Written Notification:

FDEP: Within seven days of emergencies, the County shall submit a written report to FDEP explaining the extent of the problem, its cause, and what actions have been or will be taken to correct it, and prevent its recurrence.

LOFTON CREEK LANDFILL POST-CLOSURE CARE PLAN

1.0 GENERAL

The Post-Closure Care Plan (Plan) was developed to describe the necessary regulatory Long-Term Care (LTC) inspections and maintenance activities at the Closed Lofton Creek Landfill. These activities were designed to ensure the continued integrity of the site and to minimize potential threat to human health and the environment following final closure and during the LTC period. The inspection of the facility utilizing the form within the Plan is to be conducted monthly and after any major storm event.

Nassau County will provide post-closure care and maintenance during the term of the regulatory LTC period. The post-closure care periods may be extended in accordance with Chapter 62-701.620(1), F.A.C., or reduced in accordance with Chapter 62-701.620 (3), F.A.C.

2.0 ACCESS REQUIREMENTS

Nassau County will retain the right of entry to the landfill property during the post-closure care period in accordance with Chapter 62-701.620(7), F.A.C.

3.0 OWNERSHIP PROVISIONS

If the landfill permit is transferred from Nassau County to an individual or company, the transfer of the permit will be in accordance with Chapter 62-701.320(11), F.A.C.

4.0 MAINTENANCE AND MONITORING PROVISIONS

4.1 General

Nassau County will provide post-closure inspections and maintenance of the site and take responsibility to ensure that the site will not pose a threat to human health or the environment for the regulatory LTC period.

During the LTC period, the Nassau County Public Works Director or designated representative will be the official contact person responsible for the post-closure care. Copies of all relevant records and documents, including the Post-Closure Care Plan will be available at the Solid Waste Management offices located at West Nassau Landfill, 46026 Landfill Road, Callahan, Florida 32011. The Nassau County Public Works Director or designated representative will be directly responsible for ensuring that all post-closure inspections and maintenance activities are completed. Post-closure care will include regularly scheduled and unscheduled programs to inspect and maintain the access roads, security fences, final cover system, stormwater drainage system, gas vents, and the monitor well network.

4.2 Inspection and Maintenance Frequency Record Keeping

During the post-closure care period, inspections will be performed by the County as required by the specific conditions of the permit. Ongoing maintenance activities, such as grass cutting, will be performed on a regular schedule throughout the post-closure care period.

Nassau County will maintain a record of each inspection made of the closed site during the LTC period. A Post-Closure Inspection Form, for documenting the inspections, is presented as Table 1. The inspector and date of inspection will be indicated for each record. In addition, each record will indicate whether any deficiencies or problems were observed during site inspection and will describe the corrective action taken. The inspector is also aware that any observed damage to the monitoring wells or liner system requires a time sensitive notification to FDEP in accordance with the requirements of the specific conditions for the permit. These records will be available for review by representatives of the FDEP upon request. These records will be archived by the Solid Waste Department office for at least three years following the end of the regulatory LTC period.

Approximate times for repair of deficiencies observed during post-closure care inspections have been indicated on the Post-Closure Inspection Form. However, performance of the repairs will depend on weather, site conditions, subcontractor scheduling, regulatory requirements, etc. Space is provided on the form to enter the date corrective action is completed. The actual Post-Closure Inspection Form format may change, as experience indicates, but the basic functions will remain the same.

Activities necessary for inspection, maintenance, and repair of the various components of the landfill are described in the following sections. All maintenance activities, except those requiring regular, ongoing care will be conducted in response to deficiencies identified during inspection visits.

5.0 POST-CLOSURE CARE ACTIVITIES

5.1 Site Security

5.1.1 Site Security Inspection

The landfill site will be inspected for indications of unauthorized access. Any signs of unauthorized access will be recorded on the inspection form and brought to the attention of the Nassau County Public Works Director so that corrective measures may be taken.

5.1.2 Site Security Maintenance

Maintenance activities will include repairing damage to gates and fencing.

5.2 Access Roads

5.2.1 Access Road Inspection

Access roads will be maintained to provide site access for regularly scheduled inspections, periodic maintenance, and site monitoring activities. Inspections of the access roads will include evaluating their ability to provide reasonable safety for 2-wheel drive vehicles.

5.2.2 Access Road Maintenance

Maintenance of the access roads will consist of repairing potholes and washouts and periodically regrading the road.

5.3 Final Cover System

5.3.1 Final Cover System Inspection

The final cover system (FCS) is designed to provide a stable surface, which will minimize damage to the FCS components, minimize leachate generation, and minimize exposure of waste. Regular inspections of the FCS require walking the perimeter of the landfill and making visual observations of the following:

1. The condition of the FCS to determine if settlement or ponding has occurred;
2. The condition of the FCS to determine if erosion, cracks, or gullies have occurred;
3. The condition of the sideslope runoff control terraces to determine if erosion or sedimentation have occurred;
4. The condition of the grassed FCS to determine inadequate growth of grass or if stressed grass exists;
5. The grass height on the FCS to determine whether mowing is required;
6. The presence of weeds or sprouting saplings which may develop root systems capable of compromising the grass cover or the underlying protective layers;
7. Evidence of leachate release from sideslopes; and
8. Damage to the geomembrane of the FCS.

5.3.2 Settlement of FCS

Regular field observations and, if required, periodic topographic surveys will be performed to check the condition or slope of the FCS. Field measurements will be performed if visual observations indicate localized settlement within a 20-ft diameter area. Measurements will be performed using a rigid board or pole which is at least 20-ft long and spans the area of settlement. Vertical settlement in this area will be measured as the perpendicular distance from the base of the reference board to the ground surface at the point of maximum subsidence. This measurement will be made using a ruler or tape accurate to 1/4 inch.

Settlement of less than 6 inches in any 20-ft diameter area will be considered minor settlement. The maintenance actions taken to correct minor settlement are described in Section 5.3.3. Settlement greater than 6 inches in any 20-ft diameter area will be considered major settlement. Occurrence of major settlement will require evaluation by a Florida Registered Professional Engineer specializing in geotechnical engineering. This evaluation will serve to distinguish whether the subsidence has been caused by structural settlement of the fill or by settlement of FCS components.

5.3.3 Final Cover System Maintenance

Maintenance tasks associated with repairing the FCS will be performed to maintain the integrity of the FCS components. Maintenance activities may include the following:

1. Minor settlement of the FCS will be repaired by refilling and compacting topsoil in the area of subsidence, regrading the area to the design contours, and reseeding to encourage grass growth;
2. Major settlement of the FCS will be evaluated by a Florida Registered Professional Engineer to determine appropriate corrective action;

3. FCS soil or side slope runoff terrace erosion, cracks, or gullies will be repaired by refilling the areas of soil loss with topsoil to maintain the required configuration. Repaired areas will be reseeded, fertilized, and watered to encourage grass growth;
4. To facilitate adequate growth, the grass will be watered, as needed, based on local conditions and practices. Fertilizers and pesticides will be applied, as needed, and weeding will be performed on a regular basis;
5. The grass cover on the cap will be mowed when grass height exceeds 18 inches;
6. Damaging weeds or saplings will be removed;
7. Leachate seeps will be evaluated by a Florida Registered Professional Engineer to determine appropriate corrective action; and
8. Observed geomembrane damage will be repaired under the observation of a third party providing quality assurance to the project and shall be certified acceptable by a Florida Registered Professional Engineer.

5.4 Stormwater Drainage Structures

5.4.1 Drainage Structures Inspection

The drainage piping and lined flumes are designed to convey stormwater runoff from the landfill top slopes, to the perimeter ditch system, and then to the stormwater detention/retention basins.

Inspection of the drainage flumes will require monitoring for the following:

- Presence of obstructions in the flow paths;
- Presence of obstructions in the collection basins;
- Settlement or movement of the inlets;
- Settlement of the channel; and
- Cracks and other damage in the channel lining.

5.4.2 Drainage Structure Maintenance

If materials accumulate in the drainage pipes or flumes and obstruct the flow path, these materials must be removed. Development of settlement or cracks in the drainage structures will require consultation with a Florida Registered Professional Engineer to determine an appropriate method of repair.

5.5 Perimeter Drainage System

5.5.1 Perimeter Drainage System Inspection

The perimeter drainage system is designed to control and direct the flow of surface water away from the landfill slopes. Inspection of the perimeter ditches and berms requires walking their lengths and making visual observations of the following:

1. Sloughing or erosion of ditch slopes or outer berms;
2. Ponded water or impairment of flow;
3. Condition of the detention/retention ponds;
4. Excessive sedimentation in detention/retention ponds;
5. Blockage or obstructions in the discharge structures;
6. Settlement of ditch bottoms; and
7. Excessive growth of vegetation.

5.5.2 Perimeter Drainage System Maintenance

Maintenance tasks associated with repairing the perimeter ditch system include the following:

1. Sloughed berms and eroded ditch slopes will be repaired by filling these areas with soil then seeding, fertilizing, and watering to encourage vegetative growth;
2. Sediment deposits in the ditches will be removed and the ditches will be regraded and grassed;
3. Obstructions that impede flow in the pond discharge structures will be cleared or removed;
4. Impairment of flow caused by settlement beneath the ditch will be corrected by filling the area and grassing; and
5. Damaged or malfunctioning detention/retention ponds will be repaired according to the recommendations of a Florida Registered Professional Engineer.

5.6 Gas Vents

5.6.1 Gas Vents Inspection

Passive gas vents have been installed to allow the release of landfill gas. The gas venting system will be checked at the time of cover inspection to ensure that the vents are free of obstruction and operating properly. Each vent pipe will be visually observed for the following:

1. Cracks;
2. Bending or breakage;
3. Blockage of flow; and
4. Excessive odor release.

5.6.2 Gas Vents Maintenance

Repair of the gas vent pipes for cracks, breaks, or bending above the FCS will require removal and replacement of the damaged section. Materials causing blockage in the gas flow path will be removed. Problems such as excessive odor release and pipe damage existing below the FCS will be addressed according to the recommendations of a Florida Registered Professional Engineer.

5.7 Monitor Wells

5.7.1 Well Inspection

Visual examinations will be made of each monitor well to assess the following:

1. Integrity of the padlocks for the groundwater monitoring well;
2. Condition of the groundwater monitoring well protective casing; and
3. Condition of the groundwater monitoring well concrete pad.

The FDEP will be immediately notified if monitor wells are not functional or if monitor wells have been destroyed. The monitor well will be repaired or replaced within 60 days of the inspection or within the FDEP specified time period.

5.7.2 Monitor Well Maintenance

Minor repairs of the monitor wells may include replacement of related damaged or missing padlocks, guard posts, and concrete pads. Cracks in the concrete pads greater than 1/4-inch wide will be repaired with patching mortar. If the protective casings are damaged or cracked, a Florida Registered Professional Engineer or Florida Registered Professional Geologist will be consulted to evaluate the need for additional corrective action.

6.0 Post-Closure Site Monitoring

Annual groundwater activities will be performed during the post-closure care period or as required by the specific conditions of the permit. All post-closure monitoring activities, including sampling, laboratory analysis, reporting, and the FDEP notification will be performed in accordance with the Water Quality Monitoring Plan.

7.0 Stabilization Report

Every five years, the County will submit a Stabilization Report to FDEP that addresses stabilization of the Landfill. The Stabilization Report will be prepared in accordance with Chapter 62-701.620(6) and submitted to the Department. The submittal shall include the water quality technical report required in paragraph 62-701.510(8)(b), F.A.C.

8.0 Post-Closure Care Certification

At the end of the LTC period, certification will be submitted to the FDEP indicating that the LTC activities have been completed in accordance with the Long-Term Care Plan and Chapter 62-701.620(9) F.A.C. This certification will be prepared and submitted by an independent Florida Registered Professional Engineer.

Table 1: Post-Closure Inspection Form (Page 1 of 3)

LANDFILL: Lofton Creek OWNER: Nassau County					
Observation Report Number: _____			Date of Observation: ___/___/___		
Time Arrived Onsite: _____			Time Departed Site: _____		
Field Personnel: _____					
	YES (1)	NO	NOT OBSERVED	APPROXIMATE TIME PERIOD FOR CORRECTION (2)	COMMENT NO.
Section A: Site Security					
1. Entry sign damaged or missing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
2. Any corrosion or damage to perimeter fence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
3. Any damage to gates and locks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
Section B: Roads					
1. Access compromised by road conditions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
2. Perimeter road compromised by road conditions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
Section C: Final Cover System					
1. Evidence of settlement or ponding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
2. Evidence of erosion, cracks, or gullies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
3. Evidence of erosion or sedimentation of sideslope runoff control terraces	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
4. Inadequate or stressed grass cover	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	45 days	_____
5. Grass height greater than 18 inches	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
6. Growth of damaging weeds or saplings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
7. Evidence of leachate release	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
8. Geomembrane liner impact	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
a. Notify FDEP	<input type="checkbox"/>			72 hours	_____
b. Provide written report to FDEP	<input type="checkbox"/>			7 days	_____
Section D: Drainage Flumes					
1. Blockage at entrance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7 days	_____
2. Settlement of the channel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
3. Damage/cracks in channel lining	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
4. Settlement or Movement of the inlets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
5. Excessive silting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
(1) If yes, assign a comment number and see Page 3 for instructions.					
(2) Approximate number of days from detection for correction of the inspection item.					
Signature of Observer: _____			Date of Observation: ___/___/___		

Table 1: Post-Closure Inspection Form (Page 2 of 3)

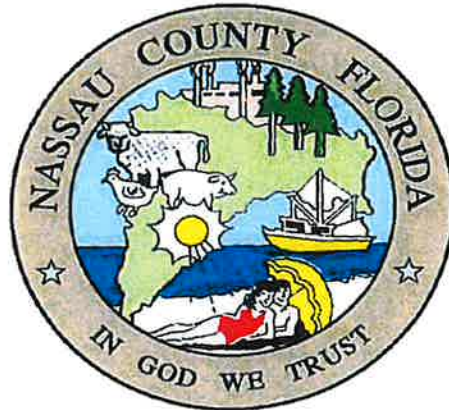
LANDFILL: Lofton Creek OWNER: Nassau County					
Observation Report Number: _____			Date of Observation: ____/____/____		
	YES (1)	NO	NOT OBSERVED	APPROXIMATE TIME PERIOD FOR CORRECTION (2)	COMMENT NO.
Section E: Perimeter Drainage System					
1. Sloughing of ditch slopes or berms ditches, impairment of flow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
2. Damaged/malfunctioning detention ponds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
3. Erosion of ditch slopes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
4. Vegetation height greater than 18 inches	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
5. Blockage or obstructions in discharge structures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
6. Pondered water or impairment of flow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
7. Problems associated with silting, sediment level	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
Section F: Gas Vents					
1. Visible damage to system components	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	60 days	_____
2. Blockage in pipes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	60 days	_____
3. Local settlement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	60 days	_____
Section G: Groundwater Monitoring Wells					
1. Protective casing missing or damaged	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	60 days	_____
2. Concrete pads damaged or cracked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	60 days	_____
3. Wells unlocked, locks missing, damaged or inoperable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	60 days	_____
a. Notify FDEP (if damaged or inoperable)	<input type="checkbox"/>			Immediately In Writing	_____
Section H: Limits of Waste Monuments					
1. Monuments in unacceptable condition and/or not visual	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 Days	_____
2. Limit of waste markers, damaged or missing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 Days	_____
(1) If yes, assign a comment number and see Page 3 for instructions. (2) Approximate number of days from detection for correction of the inspection item.					
Signature of Observer: : _____			Date of Observation: ____/____/____		

LONG-TERM CARE PLAN

West Nassau Class I Landfill

Submitted to:
Florida Department of Environmental Protection
Waste & Air Resources Management
Northeast District Office
8800 Baymeadows Way West, Suite 100
Jacksonville, Florida 32256

Submitted by:



Nassau County Board of County Commissioners
Public Works Department
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Updated July 2015

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Table 1 Long-Term Care Inspection Form

Emergency Contacts and Notification

Emergency Contacts:

- Whenever a person is hurt or endangered, immediately contact fire rescue or police at: **911**, then County personal listed below.
- Whenever a serious problem occurs at the Landfill, including a fire or another emergency that poses an unanticipated threat to the public health or the environment, immediate notification is required by telephone to the following:

County Personnel: Lynn Diden, Landfill Foreman: **904-530-6701**

J. Scott Herring, P.E. Nassau County Public Works Director: **904-491-7330**

FDEP: During regular business hours, notification shall be made to the District at **904.256.1700**. If an emergency occurs outside regular business hours, then telephone the 24-hour emergency phone number **800.320.0519**. This latter number is to be used for emergencies only.

Written Notification:

FDEP: Within seven days of emergencies, the County shall submit a written report to FDEP explaining the extent of the problem, its cause, and what actions have been or will be taken to correct it, and prevent its recurrence.

LONG-TERM CARE PLAN West Nassau Class I Landfill

1.0 General

This Long-Term Care Plan (Plan) was developed to describe the necessary Long-Term inspections and maintenance activities for the closed West Nassau Class I Landfill. These activities, combined with the requirements of the current permit for long term care operations, Title V permit, NSPS operating parameters, and the water quality monitoring plan, were designed to ensure the continued integrity of the site and to minimize the potential threat to human health and the environment during the Landfill's Long-Term Care periods. The old closed 11 acre area of the West Nassau Landfill (northern portion) has a Long-Term Care period duration of 20 years while the remaining 42 acre area of the Landfill has a Long-Term Care period duration of 30 years. The Long-Term Care periods began on March 25, 2013 and may be extended in accordance with Chapter 62-701.620(1), Florida Administrative Code (F.A.C.) or reduced in accordance with Chapter 62-701.620(3), F.A.C.

2.0 Access Requirements

Nassau County will retain the right of entry to the landfill property during the Long-Term Care period in accordance with Chapter 62-701.620(7), F.A.C.

3.0 Ownership Provisions

If the landfill permit is transferred from Nassau County to an individual or company, the transfer of the permit will be in accordance with Chapter 62-701.320(11), F.A.C. Successors in interest provisions, identified in Chapter 62-701.320(11)(e), F.A.C., will be maintained during the Long-Term Care period.

4.0 Maintenance and Monitoring Provisions

4.1 General

Nassau County will provide Long-Term Care inspections and maintenance of the site and take responsibility to ensure that the site will not pose a threat to human health or the environment for the full period of Long-Term Care period in accordance to this Plan, Title V permit requirements, NSPS operating procedures, the current permit for long term care, water quality monitoring plan, and applicable federal, state, and local regulatory requirements.

During the Long-Term Care period, the Nassau County Public Works Director or designated representative will be the official contact person responsible for the Long-Term Care. This individual will maintain copies of all relevant records and documents, including the Long-Term Care Plan. The Nassau County Public Works Director or designated representative will be directly responsible for ensuring that all Long-Term inspections and maintenance activities are completed correctly. Long-Term Care will include a regularly scheduled program to inspect and maintain the access roads, security fences, final cover system, storm water drainage system, leachate collection system, landfill gas management system, and the monitor well network.

If a monitoring well or other device required by the monitoring plan is destroyed or fails to operate for any reason, the landfill owner or operator shall, immediately upon discovery, notify the Department in writing. All inoperative monitoring devices shall be replaced with functioning devices within 60 days of the discovery of the malfunctioning unit unless the landfill owner or operator is notified otherwise in writing by the Department.

4.2 Inspection and Maintenance Frequency Record Keeping

During the Long-Term period, inspections will be performed at monthly intervals or after a significant rainfall or other potentially damaging event. Ongoing maintenance activities such as grass cutting, leachate pumping and removal, and landfill gas management will be performed on a regular schedule throughout the Long-Term Care period.

Nassau County will maintain a record of each inspection made of the closed site during the Long-Term Care period. A Long-Term Care Inspection Form for documenting the inspections is presented as Table 1. The inspector and date of inspection will be indicated on each record. In addition, each record will indicate whether any deficiencies or problems were observed during site inspection and will describe the corrective action taken. These records will be archived for at least three years following the end of the Long-Term Care period. These records will be available for review by representatives of the FDEP upon request.

Approximate times for repair of deficiencies observed during Long-Term Care inspections have been indicated on the Long-Term Care Inspection Form and could be further defined in the permit for long term care. However, performance of the repairs will depend on weather, site conditions, subcontractor scheduling, regulatory requirements, etc. Space is provided on the form to enter the date corrective action is completed. The actual Long-Term Care Inspection Form format may change, as experience dictates, but the basic functions will remain the same.

Activities necessary for inspection, maintenance, and repair of the various components of the landfill are described in the following sections. All maintenance activities, except those requiring regular, ongoing care, will be conducted in response to deficiencies identified during inspection visits.

5.0 Long-Term Care Activities

5.1 Site Security

5.1.1 Access Control

The east side of the landfill is fenced from the existing gate across the Facility's southern access road to a point adjacent to the north end of the North Pond. If the convenience center is open and there are no on-site County personnel or facility attendants, the gate between the disposal area and the convenience center is to be locked to prevent unauthorized access to closed portions of the Facility. The fence and gates shall be maintained to control access to the site, and all gates shall be locked during non-operating hours, and when the convenience center is closed and no County personnel or facility attendants are on-site.

5.1.2 Site Security Inspection

The landfill site will be inspected for indications of unauthorized access. Any signs of unauthorized access will be recorded on the inspection form and brought to the attention of the Public Works Director or designated representative so that corrective measures may be taken including notification of law enforcement officials.

5.1.3 Site Security Maintenance

Maintenance activities will include repairing damage to gates and fencing.

5.2 Access Roads

5.2.1 Access Road Inspection

Access roads must be maintained to provide site access for regularly scheduled inspections, periodic maintenance, and site monitoring activities.

5.2.2 Access Road Maintenance

Maintenance of the access roads will consist of repairing potholes and washouts and periodically regrading the road.

5.3 Multi-Layer Final Cover System

5.3.1 Multi-Layer Final Cover System Inspection

The multi-layer final cover system (MLFCS) is designed to provide a stable surface which will minimize damage to the MLFCS components and minimize leachate generation, landfill gas emissions, and exposure of waste. Regular inspections of the MLFCS require walking the perimeter of the landfill, and making visual observations of the following:

1. The condition of the MLFCS to determine if settlement or ponding has occurred;
2. The condition of the MLFCS to determine if erosion, cracks, or gullies has occurred;
3. The condition of the sideslope runoff control terraces to determine if erosion or sedimentation has occurred;
4. The condition of the underdrain pipes from the cover system to determine if blockage or clogging has occurred;
5. The condition of the grassed MLFCS to determine inadequate growth of grass or stressed grass exists;
6. The grass height on the MLFCS to determine whether mowing is required;
7. The presence of weeds or sprouting saplings which may develop root systems capable of compromising the grass cover or the underlying protective layers; and
8. Evidence of leachate release from sideslopes.

5.3.2 Settlement of MLFCS

The landfill cap will have a final top slope of approximately 4 to 7 percent and final side slopes of between 3 horizontal to 1 vertical (3H:1V) and 10H:1V. Regular field observations will be performed to check the condition or slope of the MLFCS.

Field measurements will be performed if visual observations indicate localized settlement within a 20-foot diameter area. Measurements will be performed using a rigid board or pole which is at least 20-feet long and spans the area of settlement. Vertical settlement in this area will be measured as the perpendicular distance from the base of the reference board to the ground surface at the point of maximum subsidence. This measurement will be made using a ruler or tape accurate to 1/4-inch.

Settlement of less than 6 inches in any 20-foot diameter area will be considered minor settlement. The maintenance actions taken to correct minor settlement are described in Section 5.3.3. Settlement greater than 6 inches in any 20-foot diameter area will be considered major settlement. Occurrence of major settlement will require evaluation by a Florida Registered Professional Engineer. This evaluation will serve to distinguish whether the subsidence has been caused by structural settlement of the fill or by settlement of MLFCS components.

5.3.3 Final Cover System Maintenance

The MLFCS components for the Class I Landfill top slopes include:

1. 6-inch thick grassed erosion layer (top soil and sod);
2. 18-inch thick protective soil layer;
3. 8-ounce/square yard nonwoven geotextile (note that the partial closure area in the southwest portion of the Class I landfill utilized an approved geocomposite drainage layer);
4. 50-mil Agru Super Grip Wet Drain Liner or equivalent (Note that the partial closure area in the southwest portion of the Class I landfill utilized an approved 40 mil textured VLDPE geomembrane);
5. 12-inch thick or greater liner subgrade and leveling course, and
6. Waste with initial (daily) or intermediate cover.

The side slope portion of the MLFCS will consist of:

1. Grassed sideslope runoff control terraces;
2. 6-inch thick grassed erosion layer (top soil and sod);
3. 18-inch thick protective soil layer;
4. 8-ounce/square yard nonwoven geotextile (note that the partial closure area in the southwest portion of the Class I landfill utilized an approved geocomposite drainage layer). Additionally, an underdrain system is incorporated in the geotextile/liner system to promote drainage above the liner and includes a pipe at the bottom of the slope for drainage purposes;
5. 50-mil Agru Super Grip Wet Drain Liner or equivalent (note that the partial closure area in the southwest portion of the Class I landfill utilized an approved 40 mil textured VLDPE geomembrane);
6. 12-inch thick or greater liner subgrade and leveling course, and

7. Waste with initial (daily) or intermediate cover.

Maintenance tasks associated with repairing the MLFCS will be performed to maintain the integrity of the MLFCS components. Maintenance activities may include the following:

1. Minor settlement of the MLFCS will be repaired by refilling and compacting topsoil in the area of subsidence, regrading the area to the design contours, and reseeding to encourage grass growth;
2. Major settlement of the MLFCS will be evaluated by a Florida Registered Professional Engineer to determine appropriate corrective action;
3. MLFCS soil or side slope runoff terrace erosion, cracks, or gullies will be repaired by refilling the areas of soil loss with topsoil to maintain the required configuration. Repaired areas will be reseeded, fertilized, and watered to encourage grass growth;
4. The underdrain piping system will be visually inspected for water discharges from the pipe to ensure that there is no blockage or clogging. The inspection is to occur as part of the County's periodic inspection plan and after major storm events. In addition, if the ground surface of the Landfill appears saturated in an area served by the underdrain piping collection system, the underdrain piping system will be inspected to determine if it is functioning properly. If the function of any portion of the underdrain piping system appears impaired, an attempt will be made to isolate and repair the cause of the impairment. If the repair is unsuccessful, the affected area of the system is to be jet cleaned or replaced as necessary to restore proper function.
5. To facilitate adequate growth, the grass will be watered, as needed, based on local conditions and practices. Fertilizers and pesticides will be applied, as needed, and weeding will be performed on a regular basis;
6. The grass cover on the cap will be mowed when grass height generally exceeds 18 to 30 inches;
7. Damaging weeds or saplings will be removed; and
8. Leachate seeps will be evaluated by a Florida Registered Professional Engineer to determine appropriate corrective action.

5.4 Leachate Management System

5.4.1 Leachate Management System Inspections

The leachate management system consist of a series of collection piping, pump stations, force mains, air lines, and storage tanks. The management system will be maintained in good working order. The effectiveness of the leachate management system and the cell cover will be determined by measuring the volumes of leachate removed. Abnormal volumes, unusual odors, and similar abnormalities will be noted and addressed. The leachate collection system will be inspected as described below in Section 5.4.2. The leachate storage tank overflow control equipment will be inspected weekly to ensure it is in good working order. The exposed exterior of all aboveground tanks will be inspected weekly for adequacy of the cathodic protection system, leaks, corrosion, and maintenance deficiencies. Interior inspection of tanks will be performed whenever the tank is drained or at a minimum of every three years. If the inspection reveals a tank or equipment deficiency, leak, or any other deficiency which could result in failure of the tank to contain the leachate, remedial measures will be taken immediately to eliminate the leak or correct the deficiency. Inspection reports will be maintained and made available to the Department upon request.

5.4.2 Leachate Collection System Maintenance

Visible damage to system components, including pumping equipment, sumps, and force mains will be repaired as soon as possible. The leachate collection systems will be water pressure cleaned or inspected by video recording every five years. Cleaning and/or video inspection will be conducted if it appears there is a flow issue observed in the system e.g. no or reduced flow from the pump station. If video inspection shows clogging or material buildup that is restricting flow in the pipes, the pipes will be cleaned. Any manholes, pumps stations, or pump riser pipes will also be inspected and any accumulated debris will be removed. Results of the collection system cleanings or inspections shall be available to the Department upon request.

5.5 Storm Water Drainage Structures

5.5.1 Drainage Structures Inspection

The drainage piping and downslope channels are designed to convey storm water runoff from the landfill top slopes, to the perimeter ditch system, and then to the storm water detention/retention basins.

Inspection of the drainage piping, flumes, and other structures will require monitoring for the following:

1. Presence of obstructions in the flow paths;
2. Presence of obstructions in the collection basins;
3. Settlement of the drainage terraces and grout filled fabric revetment (GFFR) channels;
4. Settlement or movement of the inlets and downcomer piping;
5. Settlement of the piping cover which may be a sign of pipe joint separation; and
6. Cracks and other damage in the channel lining.

5.5.2 Drainage Structure Maintenance

If materials accumulate in the drainage pipes or flumes and obstruct the flow path, these materials must be removed. Development of settlement, cracks, or separation in the drainage structures will require consultation with a Florida Registered Professional Engineer to determine an appropriate method of repair.

* 5.6 Perimeter Drainage System

5.6.1 Perimeter Drainage System Inspection

The perimeter drainage system is designed to control and direct the flow of surface water away from the landfill slopes. Inspection of the perimeter ditches and berms requires walking their lengths and making visual observations of the following:

1. Sloughing or erosion of ditch slopes or outer berms;
2. Ponded water or impairment of flow;
- * 3. Condition of the detention/retention ponds;
4. Excessive sedimentation in detention/retention ponds;

5. Blockage or obstructions in the discharge structures;
- * 6. Excessive Sediment in the ditch bottoms; and
- * 7. Excessive growth of vegetation.

5.6.2 Perimeter Drainage System Maintenance

Maintenance tasks associated with repairing the perimeter ditch system include the following:

1. Sloughed berms and eroded ditch slopes will be repaired by filling these areas with soil then seeding, fertilizing, and watering to encourage vegetative growth;
2. Sediment deposits in the ditches will be removed and the ditches will be regraded and grassed;
3. Obstructions that impede flow in the pond discharge structures will be cleared or removed;
4. Impairment of flow caused by settlement beneath the ditch will be corrected by filling the area; and
5. Damaged or malfunctioning detention/retention ponds will be repaired according to the recommendations of a Florida Registered Professional Engineer.

5.7 Landfill Gas Management System

The Landfill has an existing landfill gas collection and control system (GCCS) to manage the landfill gas generated by the decomposition of waste used in conjunction with a monitoring system to evaluate possible migration of landfill gas. The GCCS actively extracts and treats landfill gas through 62 extraction points (vertical gas extraction wells and connections to the leachate collection system clean out risers) and a flare skid. The flare skid contains the gas mover equipment (blower) and the thermal destruction device (open candlestick type flare). The extraction points are operating under a vacuum which withdraws the landfill gas from the waste into a series of header and lateral pipes that direct the extracted gas to an on-site flare station for destruction. Condensate generated from the gas is collected at low points in the system and pumped to existing leachate collection points and then to the on-site leachate storage facilities.

The facility is required to install, operate, maintain, and report information regarding the GCCS in accordance with 40 CFR 60, Subpart WWW, Standards of Performance for Municipal Solid Waste Landfills. This regulation requires the facility to perform routine monitoring, submit reports, expand the system (when required by regulations), and maintain the system. Additionally, it states how the facility must operate the system and for the duration of operation. The operation, monitoring, and reporting of the GCCS will continue to change as the rate of gas generation declines over time.

The facility operates the GCCS in accordance with the facility's Title V permit and New Source Performance Standards (NSPS). Operational requirements are set forth in both documents. Monitoring activities will include monitoring each extraction well for the following:

- Gas composition (methane, carbon dioxide, oxygen and balance gas);
- Header and well pressure at the well;
- Gas flow; and
- Temperature.

The flare station will provide a continuous recorder for measuring flow and temperature, and the overall

header pressure will also be monitored at the flare as well on a monthly basis.

Additionally, NSPS and the Title V permit have allowances for the decommissioning of the GCCS, which is when the landfill gas generation rates have substantially been reduced. Final determination for the decommissioning of the GCCS will require site-specific testing, reporting, and agency approval. The GCCS could be converted to a passive gas system should landfill gas pressures become a concern upon decommissioning of the active gas extraction system and testing out of the NSPS regulations.

5.7.1 Gas Extraction Well Inspection

Each extraction well is inspected periodically for operational defects during the required monthly monitoring event. The wells are visually inspected for obvious defects in the well seals, sample ports, flexible hoses, control valves, and PVC or HDPE casing. The valves are adjusted as necessary for compliance purposes. The sample ports are inspected for damage. Leaning well casings are inspected for continuity to ensure that gas is being extracted at depth from the landfill.

5.7.2 Gas Extraction Well Maintenance

Repair of the extraction wells will depend on the level of wear or damage observed. Significant damage or wear to the well head may require replacement of the entire well head. Sample ports are replaced as necessary. Control valves are also replaced if needed. If the entire well is determined to be inoperable from a broken casing, replacement of the entire extraction well may be required.

5.7.3 Gas Extraction Header Inspection

The majority of header and lateral piping is buried as part of the designed system. However, access points are designed for cleanout or inspection of the header, if required. Problems with the header system will be readily apparent from review of the system operating data. For example, if a section of the well field is not receiving vacuum from the flare station, there is a high probability that the header is damaged or has settled (thus filling up with condensate). Periodic review of the monitoring data provides information on areas where the header and/or laterals should be inspected for damage. Inspection will typically be carried out through inserting a camera into the cleanouts and visually inspecting the damaged area.

Header valves are also exercised and inspected for damage by measuring vacuum on both sides of the valve.

5.7.4 Gas Extraction Header Repair

If a section of the gas conveyance header is determined to be damaged from inspection, the affected section will be repaired. If settlement has occurred and caused an unexpected low point in the header, the affected section will be raised and clean fill will be placed and compacted beneath the header. Sections of broken header will be removed and replaced with new HDPE pipe. Valves are replaced as needed.

5.7.5 Condensate Management System Inspection

The condensate management system consists of condensate sumps and force mains to direct condensate generated by the gas to the leachate collection points. The condensate sumps are inspected for visual damage. Top seals are removed for internal inspection of the sump. The condensate pumps are checked for proper operation.

5.7.6 Condensate Management System Repair

Repairs to the condensate management system may include replacement of condensate pumps, repairs to the force main lines, and/or repairs to the sumps. In extreme cases, sumps may be replaced if significant damage is observed.

5.7.7 Flare Station Inspection

The flare station for the extraction system is regularly inspected. Periodically, the flare station is thoroughly inspected with some components individually tested and cleaned. This inspection includes a detailed check of the following components:

- Blower – The blower is inspected by visual inspection of the bearings, seals, couplings, and other components as recommended by the manufacturer.
- Valves – Each control valve is inspected periodically for damage and manually exercised for proper operation.
- Gauges – All gauges is inspected per the manufacturer's recommendations.
- Pilot system – The pilot system, including the propane tank, pilot light, etc. is inspected for proper operation. The propane tank will be replaced / refilled as needed.
- Flare Stack – The flare stack is inspected for defects per the manufacturer's recommendations. The UV sensor is inspected for damage and replaced as necessary.
- Recording devices – Any recording devices, including circular chart recorders and / or data loggers are inspected for damage and wear. Ink is replaced in the chart recorders as needed.
- Condensate knockout pot – The condensate knockout pot is periodically inspected for proper operation. The site glass is inspected and repaired if necessary, as well as outlet valves, etc.
- Flame Arrestor – The flame arrestor is inspected for rust and corrosion periodically. The component is removed and disassembled for inspection and cleaned as necessary.

5.7.8 Flare Station Repair

Any damaged or worn components of the flare station are repaired or replaced as per the manufacturer's recommendations for that particular component. Repairs may include replacement of valves, gauges, and other components or replacement of the motor or blower in extreme cases. Periodic inspection and monitoring provides an indication of the effectiveness of the flare station components and when repairs may be needed.

5.7.9 Repair Times

Any repairs to the components of the GCCS that are causing an excessive emission or exceedance of NSPS

operational parameters are to be conducted within 15 days from the date of the observance of the item needing repair. If the repair cannot be completed, or is not successful in bringing the component back into NSPS or Title V operating compliance within the 15 day period, then a notification to FDEP-Northeast District shall be made requesting a 45 day extension (60 days total from the original observance) for the County to perform the repair and to bring the component back into NSPS operating parameter compliance. If the repair cannot be completed within the 60 day period, a notification to FDEP-Tallahassee shall be made for a 60 day extension (120 days total from the original observance). Repairs must be made within the 120 day period or the system will be required to be expanded by the 121st day in accordance with NSPS requirements. For a time extension request from FDEP, upon repair completion and confirmation that the GCCS components are back into NSPS operating parameter compliance, FDEP shall be notified and if applicable, documentation shall be made in accordance to the County's Startup, Shutdown, & Malfunction (SSM) Plan.

5.7.10 Decommissioning of Wells

LFG collection devices (horizontal wells, vertical wells, etc.) may be decommissioned upon demonstration that they are not producing significant amounts of LFG, or upon demonstration that excess air infiltration cannot be avoided without shutting down the collection device.

LFG collection devices located in segregated areas of asbestos or non-degradable materials, or in any area of the landfill that can be shown to contribute less than one (1) percent of the total amount of NMOC emissions from the landfill as determined by New Source Performance Standards (NSPS) procedures, may be decommissioned. Additionally, if an exceedance resulting from excess air infiltration into a well cannot be easily remedied, the well may be decommissioned as long as the decommissioning of the well does not cause an exceedance in surface emissions. To avoid an exceedance in surface emissions, the GCCS may need to be expanded through the construction of a new well or the implementation of other corrective measures.

To decommission a LFG well, the valve on the wellhead will be closed completely or the well will be capped. LFG wells which have been decommissioned will not be allowed to cause an exceedance in surface emissions and will not be allowed to introduce excess air into the GCCS or the waste.

5.7.11 Cessation of GCCS Operation

The GCCS may be capped or removed when:

- The landfill is no longer accepting solid waste and is permanently closed;
- The GCCS has been in operation for a minimum of 15 years; and
- The calculated NMOC production rate is less than 50 megagrams per year on three successive test dates that are no less than 90 days apart and no more than 180 days apart. The testing location occurs at the flare station prior to the blower and knockout pot.

Surface emissions testing can be changed from quarterly to annually once the landfill is closed and there are no monitoring exceedances of the operational standards for three consecutive quarterly monitoring periods. Any methane reading of 500 ppm or greater above background levels detected during the annual monitoring will cause the surface emissions monitoring to revert back to a quarterly basis.

The cessation of the GCCS operation and compliance with NSPS operating parameters does not mean the

end to the flare station operation, GHG reporting requirements, odor control requirements, or landfill gas migration monitoring. Additionally, active wells which are no longer required may need to be converted to a passive well operation to allow for low volumes of gas to vent directly to the atmosphere or controlled by a "passive flare" located on top of the individual well.

5.7.12 Odor Remediation Plan

The Landfill is operated in such a way to control objectionable odors in accordance with subsection 62-296.320(2), F.A.C. If objectionable odors have been confirmed beyond the landfill property boundary, the County will notified the Department and will:

- Submit to the Department for approval an odor remediation plan for the gas releases. The plan shall describe the nature and extent of the problem and the proposed long-term remedy. The remedy shall be initiated within 30 days of approval.
- Implement a routine odor monitoring program to determine the timing and extent of any off-site odors, and to evaluate the effectiveness of the odor remediation plan.

5.8 Monitoring Wells/Gas Probes

Semi-annual groundwater, semi-annual surface water, and quarterly explosive gas monitoring activities will be performed during the Long-Term Care period. In accordance with Rule 62-701.620(4), F.A.C., a modified groundwater monitoring plan may be requested for the site. All Long-Term monitoring activities, including sampling, laboratory analysis, reporting and the FDEP notification will be performed in accordance with the requirements provided in the Landfill's permit for Long Term Care.

5.8.1 Well/Probe Inspection

Visual examinations are made of each monitoring well/gas probe to assess the following:

1. Condition of the protective casing; and
2. Condition of the concrete pad.

If monitoring wells/gas probes are not functional or have been destroyed, the Department will be notified by the end of the next business day after the inspection, and in writing within one week. The monitoring well/gas probe will be repaired or replaced within 60 days of the inspection or within the Department specified time period.

5.8.2 Monitoring Well/Gas Probe Maintenance

Minor repairs of the monitoring wells/gas probes may include replacement of damaged or missing padlocks, guard posts, and concrete pads. Unlocked wells will be locked immediately. Cracks in the concrete pads that are greater than 1/4-inch wide will be repaired with patching mortar. If the protective casings are damaged or cracked, a Florida Registered Professional Engineer or Florida Registered Professional Geologist will be consulted to evaluate the need for additional corrective action.

5.9 Inward Gradient System

The Landfill is surrounded by a series of slurry walls. The facility currently maintains an inward gradient around the Landfill to the north by pumping the French drain system that was installed around the closed Landfill concurrently with the slurry wall. The Facility also maintains an inward gradient around the closed area of the Landfill that was installed with a bottom liner by withdrawing groundwater using a series of six pumps, a.k.a. the "recovery well system" in the southeast corner of the Landfill. *[Note: 2015 Permit allowed the County to discontinue groundwater withdrawal through use of the "recovery wells system" in the southeast corner of the Landfill for a testing period to demonstrate that turning the system off will not result in violations of State water quality standards outside of the slurry wall. During this testing period, the County does not need to maintain an inward gradient at the slurry wall for the southern portion of the Landfill, but will continue to monitor water level measurements inside and outside the slurry wall during this period. If the results of groundwater and surface water sampling indicate detection of any VOCs that can be attributed to migration of groundwater from inside the slurry wall, the recovery well system will be reactivated within 30 days of receipt of laboratory test results to re-establish an inward hydraulic gradient.]*

5.9.1 Water Level Measurements

Water level measurements inside and outside of the slurry walls are to be measured and recorded monthly. Please refer to the Facility's Permit for Long-Term Care (and any related permit modifications) for the designated well locations and inward gradient compliance requirements.

5.9.2 Inward Gradient System Inspections

The inward gradient system will be maintained in good working order. The effectiveness of the inward gradient system and the cell cover will be determined by monitoring the water levels inside and outside the slurry wall on a regular basis. A significant change in the water levels will be noted and addressed.

5.9.3 Inward Gradient System Maintenance

Visible damage to system components, including pumping wells, pumping equipment, piezometers/monitoring wells (see Section 5.8.2), force mains, and storage tanks, will be repaired as soon as possible according to the recommendations of a Florida Registered Professional Engineer. Temporary pumping to maintain the inward gradient may be warranted if the damage and/or repair period will jeopardize the gradient.

6.0 Estimated Operations and Maintenance Costs

Estimated costs for the performance of the Long-Term operation and maintenance activities are updated annually as discussed in Section 8.0. The costs include the anticipated costs of a third party performing all facility observations, routine and non-routine maintenance tasks, and site monitoring activities. Third party costs are based on unit costs from bids received on similar landfill construction projects, Florida Department of Transportation costs, Means Site Work and Landscape Construction Cost Data, vendor quotes, and engineering judgment.

7.0 Stabilization Report

Every five years after issuance of the permit for Long-Term Care, the County will submit a Stabilization Report to FDEP that addresses stabilization of the Landfill. The Stabilization Report will be prepared in accordance with Chapter 62-701.620(6) and submitted to the Department. The submittal shall include the technical report required in paragraph 62-701.510(8)(b), F.A.C., and shall also address subsidence; vegetative cover; erosion control; storm water management; and the production, management, and off-site migration of landfill gas. Since a large section of the landfill disposal area is a lined facility, the Report shall address leachate collection and removal system effectiveness, and leachate quantity.

8.0 Financial Assurance

Financial assurance for Long-Term Care will be provided by a landfill management escrow account [Chapter 62-701.630(5) F.A.C.]. Long-Term cost estimates will be prepared in accordance to Chapter 62-701.630(3)(c)(d)&(e), F.A.C. and reviewed annually by a Florida Registered Professional Engineer. A certified cost adjustment statement will be submitted to the Department annually. Adjustments to the financial assurance mechanism, based on the cost adjustment statement will be completed in accordance with Chapter 62-701.630(4)(c), F.A.C. (increases in financial assurance requirements) or in accordance with Chapter 62-701.630(4)(d), F.A.C. (decreases in financial assurance requirements).

9.0 Long-Term Care Certification

At the end of the Long-Term Care period, certification will be submitted to the FDEP indicating that the Long-Term Care activities have been completed in accordance with the Long-Term Care Plan and Chapter 62-701.620(9) F.A.C. This certification will be prepared and submitted by an independent Florida Registered Professional Engineer.

**TABLE 1
LONG-TERM CARE INSPECTION FORM
(Page 1 of 3)**

LANDFILL: _____	OWNER: _____
Observation Report Number: _____	Date of Observation: ___/___/___
Time Arrived On-Site: _____	Time Departed Site: _____
Field Personnel: _____	

	YES (1)	NO	NOT OBSERVED	APPROXIMATE TIME PERIOD FOR CORRECTION (2)	COMMENT NO.
--	---------	----	--------------	--	-------------

Section A: Site Security

1. Entry sign damaged or missing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14 days	
2. Any corrosion or damage to perimeter fence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14 days	
3. Any damage to gates and locks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14 days	

Section B: Roads

1. Access compromised by road conditions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14 days	
2. Perimeter road compromised by road conditions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14 days	

Section C: Final Cover System

1. Evidence of settlement or ponding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	
2. Evidence of erosion, cracks or gullies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14 days	
3. Evidence of erosion or sedimentation of sideslope runoff control terraces	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14 days	
4. Inadequate or stressed grass cover	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	
5. Evidence of blockage/clogging of underdrain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	
6. Grass height generally greater than 18 to 30 inches	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7 days	
7. Growth of damaging weeds or saplings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7 days	
8. Evidence of leachate release	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	

Section D: Leachate Collection System

1. Visible damage to pumps, berms, sumps, force mains or storage tanks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14 days	
2. Abnormal flowrates or odors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	60 days	

Section E: Drainage Structures

1. Blockage at entrance or obstructions in path flow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7 days	
2. Settlement of the structures/pipes/channels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	
3. Settlement in the terraces/channels/pipe cover	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	
4. Excessive silting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14 days	
5. Damage/cracks in structures/pipes/channels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14 days	

- (1) If yes, assign a comment number and see Page 3 for instructions.
 (2) Approximate number of days from detection for correction of the inspection item.

Signature of Observer: _____	Date of Observation: ___/___/___
------------------------------	----------------------------------

TABLE 1 LONG-TERM CARE INSPECTION FORM (Page 2 of 3)					
LANDFILL: _____				OWNER: _____	
Observation Report Number: _____				Date of Observation: ___/___/___	
	YES (1)	NO	NOT OBSERVED	APPROXIMATE TIME PERIOD FOR CORRECTION (2)	COMMENT NO.
Section F: Perimeter Drainage System					
1. Sloughing of ditch slopes or berms ditches, impairment of flow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14 days	
2. Blockage or obstructions in the discharge structures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14 days	
3. Damaged/malfunctioning detention ponds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14 days	
4. Erosion of ditch slopes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14 days	
5. Vegetation height generally greater than 18 to 30 inches	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14 days	
6. Problems associated with silting, sediment level or deposits in ditches, piping, or ponds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	
Section G: Landfill Gas Management System					
1. Visible damage to system components (i.e. wells, condensate piping header piping, flare station components)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15 days	
2. Blockage in pipes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15 days	
3. Local settlement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15 days	
4. Odors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15 days	
Section H: Ground Water Monitoring Wells/Gas Monitoring Probes					
1. Protective casing missing or damaged	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	
2. Concrete pads damaged or cracked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	
3. Well/Probe Labels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	
Section I: Benchmarks and Limits					
1. Benchmarks in unacceptable condition and/or not visual	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	
2. Limit of waste markers, damaged or missing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	
Section J: Miscellaneous (Site Specific)					
1.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___ days	
2.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___ days	
3.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___ days	
4.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___ days	
(1) If yes, assign a comment number and see Page 3 for instructions.					
(2) Approximate number of days from detection for correction of the inspection item.					
Signature of Observer: _____				Date of Observation: ___/___/___	



FLORIDA DEPARTMENT OF Environmental Protection

Northeast District
8800 Baymeadows Way West, Suite 100
Jacksonville, FL 32256

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

April 3, 2020

Transmitted via email to: rcompanion@nassaucountyfl.com

In the Matter of an
Application for Permit by:

DEP File No.: 2870-018
Facility WACS I.D. No.: 86315
West Nassau Class I Landfill
Nassau County – Solid Waste

Mr. Robert T. Companion, P.E.
County Engineer
Nassau County Board of County Commissioners
96160 Nassau Place
Yulee, Florida 32097

NOTICE OF PERMIT MODIFICATION

Enclosed is the State of Florida Department of Environmental Protection (Department) Permit Minor Modification Number 2870-018 of Permit Number 2870-017-SF to eliminate the need to maintain an inward gradient along the Landfill’s 42-acre lined area’s southern slurry wall, to eliminate Recovery Well System for southern slurry wall system, and to eliminate certain groundwater elevation measurement wells at the West Nassau Class I Landfill.

This Notice of Modification does not alter the expiration date, the General Conditions, or the Specific Conditions, except for the revision of Section 1.B, Section 1.C, Section 2.C.1, Section 2.H.1, Section 2.C.8.a, Section 2.C.8.b, Section 1.e of Appendix 3, Section 1.e of Appendix 3, Section 1.g of Appendix 3, the replacement of APPENDIX 3.1, APPENDIX 3.4, and adding ATTACHMENT 7.

This modified Permit is issued pursuant to Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-520, 62-550, and 62-701, Florida Administrative Code (F.A.C.).

This Notice of Permit Modification and the attached revised Permit replaces the Permit Renewal issued on July 24, 2015.

A person whose substantial interests are affected by this permit may petition for an administrative proceeding (hearing) in accordance with Section 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of DEP at 3900 Commonwealth Boulevard MS #35, Tallahassee, Florida 32399-3000, within 14 days of receipt of this Permit. Petitioner shall mail a copy of the petition to the

PERMITTEE NAME: Nassau County Board of County Commissioners
FACILITY NAME: West Nassau Class I Landfill

PERMIT No.: 2870-017-SF
Facility WACS I.D. No.: 86315

applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, F.S.

The Petition shall contain the following information:

- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, DEP Permit File Number and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of DEP's action or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by DEP's action or proposed action;
- (d) A statement of the material facts disputed by Petitioner, if any;
- (e) A statement of facts which petitioner contends warrants reversal or modification of DEP's action or proposed action;
- (f) A statement of which rules or statutes petitioner contends require reversal or modification of DEP's action or proposed action; and
- (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants DEP to take with respect to DEP's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, DEP's final action may be different from the position taken by it in this permit. Persons whose substantial interests will be affected by any decision of DEP with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this notice in the Office of General Counsel at the above address of DEP. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

When the Order (Permit) is final, any party to the Order has the right to seek judicial review of the Order pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of DEP in the Office of General Counsel, 3900 Commonwealth Boulevard, MS #35, Tallahassee, Florida 32399-3000; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date the Final Order is filed with the Clerk of DEP.

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Mediation is not available for this permit modification.

Executed in Duval County, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION



Brian Durden
Environmental Manager

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this permit and all copies were sent on the filing date below to the following listed persons:

- Omar E. Smith, P.E., S2L, Incorporated, osmith@s2li.com
- Richard L. Potts, P.G., The Colinas Group, Inc., rickpotts@cfl.rr.com
- Douglas Podiak, Nassau County, dpodiak@nassaucountyfl.com
- Financial Assurance Working Group, DEP, Financial.Assurance.Working.Group@floridadep.gov
- Jeff Schroer, NED-DEP
- Michael Bogin, NED-DEP

FILING AND ACKNOWLEDGMENT

FILED, on this date, pursuant to Section 120.52, F. S., with the designated Department Clerk, receipt of which is hereby acknowledged.



Clerk

April 3, 2020
Date



FLORIDA DEPARTMENT OF Environmental Protection

Northeast District
8800 Baymeadows Way West, Suite 100
Jacksonville, FL 32256

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

Permit Issued to:

Nassau County Board of County Commissioners
96160 Nassau Place
Yulee, Florida 32097
Phone No.: 904.491.7330

Facility WACS I.D. No.: 86315
West Nassau Class I Landfill
46026 Landfill Road, Callahan, Florida 32011

Contact Person:

Robert T. Companion, P.E., County Engineer
Nassau County Board of County Commissioners
96161 Nassau Place
Yulee, Florida 32097

Email address: rcompanion@nassaucountyfl.com
Phone No.: 904.491.7330

Solid Waste Long Term Care Renewal Permit – Closed Class I Landfill

Renewal Permit No.: 2870-017-SF
Permit Minor Modification No.: 2870-018-SF-MM
Replaces Permit No.: 2870-014-SF

Permit Issued: July 24, 2015

Permit Renewal Application Due Date: 61 days prior to expiration

Permit Minor Modification: April 3, 2020

Permit Expires: July 24, 2025

Permitting Authority

Florida Department of Environmental Protection
Northeast District Office
8800 Baymeadows Way West, Suite 100
Jacksonville, Florida 32256
Phone No.: 904.256.1700
Fax No.: 904.256.1587

www.dep.state.fl.us

PERMITTEE NAME: Nassau County Board of County Commissioners
FACILITY NAME: West Nassau Class I Landfill

NC23-056-RFQ
PERMIT No.: 2870-017-SF
Facility WACS I.D. No.: 86315

SECTION 1 - SUMMARY INFORMATION

A. Authorization

The Permittee is hereby authorized to continue to operate, monitor, and maintain the closed 42-acre lined Class I Landfill during its 30-year long-term period and the closed 11-acre unlined Class I Landfill during its 20-year long-term period. The Permittee is required to be in compliance with the specific and general conditions of this Permit and any documents attached to this Permit or specifically referenced in this Permit and made a part of this Permit.

This solid waste renewal without construction is issued under the provisions of Chapter 403, Florida Statutes (F.S.), Florida Administrative Code (F.A.C.) Chapters 62-4, 62-520, 62-550, and 62-701.

This permit does not relieve the Permittee from complying with any other appropriate local zoning or land use ordinances or with any other laws, rules or ordinances. Receipt of any permits from the Department does not relieve the applicant from obtaining other federal, state, and local permits and/or modifications required by law, including those from other Sections within the Department or of the Water Management District.

B. Facility Location

The West Nassau Landfill (Facility) is located on the east side of U.S. Highway 301 (Route 177) approximately three miles north of Callahan at 46026 Landfill Road in Nassau County, Florida. The location is further identified as latitude 30°36'16"N and longitude 81°49'14"W, which is in Section 8, Township 2 North, Range 25 East. Vicinity Map of the Facility is provided as ATTACHMENT 1. Aerial Map of the Facility is provided as ATTACHMENT 2.

C. Facility Description

The Facility property encompasses 140 acres. The total disposal area is approximately 53 acres, and consists of an 11-acre landfill presently identified as the Unlined Class I Landfill, and an approximate 42-acre landfill presently identified as the Lined Class I Landfill. The Lined Landfill was constructed partially overlying the previously operated Unlined Landfill, with the two being separated by a geomembrane above grade and a slurry wall below grade. Additionally, the entire waste-filled area was surrounded by the slurry wall to a depth of approximately 50-55 feet below ground surface between 1992 and 1993. Furthermore, Unlined Landfill has a French Drain System to control water elevations inside the slurry wall and to inhibit the release of leachate. Also, the Lined Landfill has a Recovery Well System with a series of six pumps to control water elevations inside of the slurry wall system. The location of the slurry wall system and the French Drain System is shown on ATTACHMENT 3.

The construction of the Lined Landfill was performed in cells. The below-grade portion of the constructed cells sloped at 3H:1V (horizontal to vertical) to the base of the excavation, which is extended to an elevation of approximately 40 feet below ground surface. The first three cells (Cells 1, 2, and 3) of the Lined Landfill were constructed between 1991 and 1993; Cells 4 and 5 were constructed in 1996; Cells 6 and 8 were constructed in 1997; Cells 10, 12, and 14 were

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constructed in 1998; Cells 7, 9, 11, and 13 were constructed in 2001. On April 22, 1994, the Department approved of a modification to vertically expand the Facility. The construction of the Vertical Expansion was performed in two portions. The Western Portion of the Vertical Expansion with base liner and leachate collection system was constructed in advance of Cells 4 and 5 in 1996. The construction of the East Portion of Vertical Expansion was divided into two phases. Phase I consisted of the 3H:1V slope extension connecting onto the north slope of Cell 4 and was completed in 1996. The construction of Phase II consisted of the slope and upper top deck and was completed in 1997.

The bottom of the Lined Landfill Cells 1, 2, 3, 4, 5, 6, 8, 10, 12, and 14 was constructed with a single composite liner system that consists of (from bottom to top):

- 24-inch compacted clay layer with a minimum hydraulic permeability of 1×10^{-7} cm/sec;
- Smooth 60-mil HDPE geomembrane on the floor or a textured 60-mil HDPE geomembrane on the side slopes;
- Geonet draining netting;
- 8-oz/square yard non-woven geotextile;
- 12-inch sand drainage layer with a minimum hydraulic conductivity of 1×10^{-3} cm/sec;
- 12-inch protective cover layer.

The bottom of the Lined Landfill Cells 7, 9, 11, and 13 was constructed with a double-liner system that consists of (from bottom to top):

- A compacted subgrade;
- Geosynthetic Clay Liner (GCL);
- Smooth 60-mil HDPE secondary geomembrane on the bottom or a textured 60-mil HDPE secondary geomembrane on the side slopes;
- HDPE geonet secondary leachate collection layer on the bottom of the cells;
- Double-sided geocomposite secondary leachate collection layer on the side slopes;
- Smooth 60-mil HDPE primary geomembrane on the bottom or a textured 60-mil HDPE primary geomembrane on the side slopes;
- Single-sided geocomposite primary leachate collection layer on the bottom of the cells;
- Double-sided geocomposite primary leachate collection layer on the side slopes;
- 12-inch sand drainage layer with a minimum hydraulic conductivity of 1×10^{-3} cm/sec on the bottom of the cells;
- 24-inch protective cover layer on the side slopes.

The leachate collection system installed on the side slopes the Lined Landfill included:

- Drainage netting (geocomposite drainage netting for Cells 10, 12, and 14);
- 24-inch protective cover layer.

The Unlined Landfill was capped with a geomembrane and geotextile in the early 1990's.

The 9.2 acre partial closure of the western and southwestern sideslopes of the Lined Landfill was completed in October 2007 and the liner system consisted of (from bottom to top):

- 12-inch thick layer of bedding soil;
- 40-mil, textured, low density polyethylene (LLDPE) geomembrane liner;

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- 200-mil drainage net with an 8-oz/square yard geotextile bonded on both sides;
- 18-inch protective soil layer; and
- 6-inch vegetative layer consisting of topsoil and bahia sod.

The final cover system for the remaining 32.8 acres of the Lined Landfill closure was completed in 2013 and consists of (from bottom to top):

- 12-inch thick layer of bedding soil;
- 50-mil textured LLDPE geomembrane liner;
- 8-oz/square yard non-woven geotextile;
- 18-inch protective soil layer; and
- 6-inch vegetative layer consisting of topsoil and bahia sod.

The leachate collection system of the Lined Landfill consists of 12 inches of sand with a permeability of 1×10^{-3} cm/sec or greater lying above a geocomposite drainage net that is placed directly over the primary HDPE geomembrane liner. Collection laterals and header pipes installed within aggregate filter and wrapped in a non-woven geotextile, collection mains, and ancillary components convey leachate through 8-inch diameter perforated pipes to the leachate collection sumps from where it is pumped through below grade force mains to the leachate storage tanks. Leachate from the Unlined Landfill is collected by the French Drain System from which it is pumped directly via HDPE piping to the leachate storage tanks.

Leachate collected from the facility is stored on site in the three 20,000-gallon steel storage tanks, and then is transported via tanker truck to the Liquid Environmental Solutions in Jacksonville for proper treatment and disposal.

The Facility design includes groundwater, surface water, and methane gas monitoring systems. Additionally, a stormwater management system was authorized by DEP's Environmental Resource Program (ERP) Permit Nos. MS45-200912, MS45-174996, and subsequent modification 45-127028-001-EM.

This permit also coordinates DEP's Solid Waste requirements with the Title V and New Source Performance Standards (NSPS) requirements for the operation, maintenance, and monitoring requirements of the landfill's existing gas collection and control system as permitted by DEP's Air Program.

D. Appendices Made Part of This Permit

APPENDIX 1 - General Conditions

APPENDIX 2 – Approved Application Documents

APPENDIX 3 – Water Quality Monitoring Plan

APPENDIX 3.1 – Monitoring Well and Surface Water Sample Locations

APPENDIX 3.2 – Initial Background Groundwater Parameters

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APPENDIX 3.3 – Semi-annual Groundwater Parameters

APPENDIX 3.4 – Guidance for Submitting Electronic Water Quality Data to the Solid Waste Program

APPENDIX 3.5 – Initial Background and Semi-annual Surface Water Parameters

E. Attachment Made Part of This Permit

ATTACHMENT 1 – Vicinity Map

ATTACHMENT 2 – Aerial Map

ATTACHMENT 3 – Locations of French Drain, Slurry Wall, and Underdrain

ATTACHMENT 4 – Monthly Inspection Checklist

ATTACHMENT 5 – Site Plan with Gas Monitoring Probes Locations

ATTACHMENT 6 – Site Plan with Gas Extraction Wells Locations

ATTACHMENT 7 – Northern Slurry Wall Inward Gradient Wells Locations

SECTION 2 - SPECIFIC CONDITIONS

A. Administrative Requirements

1. Documents Part of This Permit. The Permit Application as revised in final form replaced or amended in response to the Department's Request(s) for Additional Information are contained in the Department's files and are made a part of this permit. Those documents that make up the complete Permit Application are listed in APPENDIX 2.
2. Permit Modification. Any change to construction, operation, monitoring, or closure requirements of this permit may require a modification to this permit, in accordance with the provisions of subsection 62-701.320(4), F.A.C.
3. Permit Renewal. In order to ensure uninterrupted operation of this Facility, a timely and sufficient permit renewal application must be submitted to the Department in accordance with subsection 62-701.320(10), F.A.C. A permit application submitted at least 61 days prior to the expiration of this permit is considered timely and sufficient.
4. Transfer of Permit or Name Change. In accordance with subsection 62-701.320(11), F.A.C., the Department must be notified by submitting Form 62-701.900(8) within 30 days: (a) of any sale or conveyance of the facility; (b) if a new or different person takes ownership or control of the facility; or (c) if the facility name or Permittee's legal name is changed.

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FACILITY NAME: West Nassau Class I Landfill

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B. Construction Requirements

Construction requirements are not applicable to this Permit.

C. Operation Requirements

1. General Operating Requirements. The Permittee shall operate, monitor, and maintain the Facility in accordance with the approved Long-Term Care Plan provided in Document 5, as listed in APPENDIX 2 of this Permit. The Department shall be notified before any changes, other than minor deviations, to the approved Long-Term Care Plan are implemented in order to determine whether a permit modification is required.
2. Operation Plan. A copy of the approved Long-Term Care Plan, including the operating record as defined in subsection 62-701.500(3), F.A.C., shall be kept at the Facility office and shall be accessible to the facility operators.
3. Erosion Control. Erosion control measures shall be employed to correct any erosion which exposes waste or causes malfunction of the storm water management system.
4. Contingency Plan and Notification of Emergencies. The Permittee shall notify the Department in accordance with the approved Contingency Plan. Notification shall be made to the Solid Waste Section of the Department's Northeast District 904.256.1700.
5. Housekeeping. The Facility shall be operated to control dust, vectors, litter and objectionable odors. If objectionable odors are confirmed beyond the landfill property boundary, the owner or operator shall comply with the gas management requirement in Section 2, Part E.
6. Leachate Management.
 - a. Management. The Permittee shall operate the leachate management system (including the collection, removal, and storage systems), and maintain the system as designed, so that leachate is not discharged from the system except as provided in the Long-Term Care Plan.
 - b. Inspections and Maintenance. Routine inspections and maintenance of the leachate management system shall be conducted in accordance with the schedule established in the Long-Term Care Plan.
 - c. Recording. The Permittee shall record quantities of leachate generated on a daily basis in gal/day, shall record precipitation at the Facility, and shall compare these measurements. If measurements indicate a significant discrepancy between leachate generation rates and precipitation records, the Permittee shall notify the Department and conduct an assessment to determine the cause of the discrepancy.
7. Stormwater. The existing stormwater system consists of series of channels and terraces that drain to downslope channels lined with grout-filled fabric revetment or to downslope

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pipes. Additionally, stormwater that infiltrates into the cover soils flows to the base of the lined slopes (on the east and south) where it is collected in the underdrain pipes. All stormwater from the entire disposal area shall be routed to the perimeter ditch, from where it shall flow into the North Detention Pond, which was designed as the primary pond for collection, treatment, and discharge of stormwater runoff from the site to an unnamed tributary of Alligator Creek. The South Detention Pond shall be maintained as the main overflow for the North Detention Pond, such that when the North Pond is full, the water backs up into perimeter ditch and flows into the South Detention Pond. Leachate shall not be discharged into the stormwater management system. Stormwater or other surface water which comes into contact with or mixes with the solid waste or leachate shall be considered leachate and is subject to the requirements of subsection 62-701.500(8), F.A.C.

8. Groundwater Pumping.

- a. **Maintaining Inward Gradient at the Unlined Landfill.** The Permittee shall continue pumping leachate/groundwater from the French Drain System that was installed around the slurry wall to maintain an inward gradient from the area outside the slurry wall to the area inside the slurry wall, as indicated on Figure 2 presented in this Permit as ATTACHMENT 7. The effectiveness of the French Drain System shall be determined by monitoring the water levels inside and outside the slurry wall.

If groundwater elevation data obtained from the piezometers or wells around the Unlined Landfill indicates that an inward gradient no longer exists between groundwater inside the area of the slurry wall and the groundwater outside the area of the slurry wall, as evidenced by comparison of data from any existing or future wells, piezometers, and/or measurement points within the slurry wall to data from the existing or future wells, piezometers, and or measuring points outside the slurry wall, the Permittee shall notify the Department within 30 days of such measurements. Within 30 calendar days of such measurement, the Permittee shall begin accelerated removal of groundwater from within the slurry wall surrounding the northern Landfill portion to restore the inward gradient. The accelerated pumping shall continue in order to maintain the inward gradient at all required measurement points within the slurry wall. All pumps shall be properly maintained in accordance with the manufacturer's recommendations and shall be repaired or when necessary, replaced within seven days.

- b. **Maintaining Inward Gradient at the Lined Landfill.** The Permittee may discontinue groundwater withdrawal through use of the Recovery Well System in the southeast corner of the Landfill and may eliminate the need to maintain an inward gradient along the Landfill's 42-acre lined area's southern slurry wall system. The Permittee may abandon Recovery Well System extraction wells RW-2 through RW-6. The Permittee may abandon groundwater elevation measurement wells BW-3 through BW-12. The Permittee may abandon piezometers D-8, D-11, D-12, D-14, D-15, and D-17. The Permittee may

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abandon non-used wells TW-DC-9, TW-DC-12, TW-DC-14, TW-DC-17, TW-DD-9, TW-DD-12, TW-DD-14, TW-DD-17.
Wells RW-1, BW-1 BW-2, and D-16 shall be excluded from any well abandonment activities due to arsenic exceedances in monitoring well PZ-CF-12.

- c. **Measurements Recording.** The quantity of water removed from inside the slurry wall to establish and/or maintain an inward gradient (e.g., from the French Drain and underdrain systems) shall be measured as well as any additional water removed from within the slurry wall. These measurements/recordings shall be summarized, compiled monthly with the leachate generation reports, and shall be maintained and made available to the Department upon request.

D. Water Quality Monitoring Requirements

1. **Zone of Discharge.** The zone of discharge for this Facility shall be a three dimensional volume defined in the horizontal plane as extending 100 feet from the permitted edge of the solid waste disposal unit; or to the property boundary; whichever is less, as depicted in APPENDIX 3.1 of the Water Quality Monitoring Plan, and defined vertically as extending from the top of the ground to the bottom of the surficial aquifer.
2. **Water Quality Standards.** The Permittee shall ensure that Class G-II water quality standards will not be exceeded at the boundary of the zone of discharge, per section 62-520.420, F.A.C., and that ground water minimum criteria will not be exceeded outside the boundary of the zone of discharge, per subsection 62-701.320(17), F.A.C.
3. **Water Quality Monitoring Plan.** The Water Quality Monitoring Plan for this permit is included in APPENDIX 3.

E. Gas Management System Requirements

1. **Construction Requirements.** All construction shall be done in accordance with the approved gas management system design, drawings, and specifications. The Department shall be notified before any changes, other than minor deviations, to the approved design are implemented in order to determine whether a permit modification is required. Locations of gas monitoring probes are specified in ATTACHMENT 5. Locations of gas extraction wells are specified in ATTACHMENT 6.
2. **Certification of Construction Completion.** After construction is completed the engineer of record shall certify to the Department in accordance with Rule 62-701.320(9)(b), F.A.C., that the permitted construction is complete and was performed in substantial conformance with the approved construction plans except where minor deviations were necessary. All deviations shall be described and the reasons therefore enumerated.
3. **Operational Requirements.** The gas collection and control system (GCCS) consists of: 50 vertical gas extraction wells and 12 tie-ins (extraction points) to the leachate collection system cleanout risers, associated header and lateral pipes that direct the extracted gas to an on-site flare station, a skid mounted flare/blower system, and

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appurtenances. The flare skid contains the gas mover equipment (blower) and the thermal destruction device (open candlestick type flare). Condensate generated from the gas shall be collected at low spots in the system, pumped to leachate collection points, and then to the existing on-site leachate storage tanks. Operation, maintenance, and monitoring of the GCCS (including the analysis of air intrusion into the GCCS) shall be conducted in accordance with the Facility's Air Permit.

4. Monitoring Requirements. Monitoring for methane gas at the property boundary and within structures on the property shall be performed to determine the effectiveness of the gas migration controls. Gas monitoring probes GP-1 through GP-29 shall be properly monitored on a semi-annual basis throughout the duration of this Permit. Specifically, the monitoring probes shall be monitored by July 31 and January 31 of each year of this Permit. The gas monitoring results shall be reported as a percent of the lower explosive limit (LEL), calibrated to methane. The report shall be submitted to the Department under separate cover no later than 15 days after the end of the period in which the monitoring occurred.
5. Gas Remediation Plan. The facility landfill gas management system shall be operated to prevent the concentration of combustible gases from exceeding 25% of the lower explosive limit in structures, excluding gas control or recovery components, and from exceeding the lower explosive limit at or beyond the property boundary. If either of these limits is exceeded then a gas remediation plan shall be designed and implemented in accordance with Rule 62-701.530(3)(a), F.A.C.
6. Odor Remediation Plan. The Facility shall be operated to control objectionable odors. If objectionable odors are confirmed beyond the property boundary then upon notification by the Department the Permittee shall develop and implement an odor remediation plan in accordance with the requirements of Rule 62-701.530(3)(b), F.A.C.

F. Financial Assurance and Cost Estimates

1. Financial Assurance Mechanism. The Permittee shall maintain, in good standing, the financial assurance mechanisms established to demonstrate proof of financial assurance. Support documentation and evidence of inflation adjustment increases shall be submitted within the time frames specified in Rule 62-701.630, F.A.C. All submittals in response to this specific condition shall be sent to:

Florida Department of Environmental Protection
 Financial Coordinator - Solid Waste Section
 2600 Blair Stone Road, MS 4565
 Tallahassee, Florida 32399-2400

2. Annual Cost Estimates. The Permittee shall annually adjust the closure cost estimate(s) for inflation using Form 62-701.900(28). Adjustments shall be made in accordance with Rule 62-701.630(4), F.A.C. and, as applicable, 40 CFR Part 264.142(a) and 264.144(a). An owner or operator using a letter of credit, guarantee bond, performance bond, financial test, corporate guarantee, trust fund or insurance shall submit the adjusted cost

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estimate(s) between January 1 and March 1. An owner or operator using an escrow account shall submit the adjusted estimate(s) between July 1 and September 1. All submittals in response to this specific condition shall be sent to the District Office and a copy to the address identified in Specific Condition F.1. or to the following email address: Solid.Waste.Financial.Coordinator@dep.state.fl.us.

3. Cost Estimates. Pursuant to Rule 62-701.630(4)(b), F.A.C., every fifth year of the Permit (i.e., by September 1, 2020 and at the time of the Permit renewal) the Permittee shall revise and provide the updated cost estimates to the Department. Revisions shall be made by recalculating (by a professional engineer) the total cost of long-term care, in current dollars, for a third party to perform the work.

G. Closure Requirements

Closure requirements are not applicable to this Permit.

H. Long-Term Care Requirements

1. Long-Term Care Period. The Permittee shall continue to monitor and maintain the integrity and effectiveness of the final cover as well as other appurtenances of the Facility, control erosion, fill subsidences, comply with the ground water monitoring plan, maintain the gas production and management, the leachate collection and removal system, the underdrain piping system, and the stormwater system, in accordance with the Long-Term Care Plan, provided in Document 5. Checklist for the Monthly Inspection is provided as ATTACHMENTS 4. The Long-Term Care period is scheduled to end on March 25, 2043 for the Lined West Nassau Class I Landfill. The Long-Term Care period is scheduled to end on March 25, 2033 for the Unlined West Nassau Class I Landfill.
2. Stabilization Report. Every five years after issuance of a permit for long-term care (i.e., by July 1, 2020 and at the time of the Permit renewal), the Permittee shall submit a report to the Department that addresses stabilization of the Landfill. The submittal shall include the technical report required in Rule 62-701.510(9)(b), F.A.C., and shall also address subsidence, barrier layer effectiveness, storm water management, and gas production and management. For lined landfills, the submittal shall also address leachate collection and removal system effectiveness and leachate quantity.
3. Long-Term Care Plan. Pursuant to paragraph 62-701.320(10)(b), F.A.C., at least once every five years (i.e., by July 1, 2020, and at the time of the Permit renewal) the Permittee shall update the Closure Plan to reflect changes in closure design, long-term care requirements, and financial assurance requirements.

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4. Certification. Following completion of the long-term care period, the owner or operator shall submit to the Department a certification, signed and sealed by a professional engineer, verifying that long-term care has been completed in accordance with the closure plan has been placed in the operating record.

Executed in Duval County, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION



Brian Durden
Environmental Manager

APPENDIX 1 General Conditions

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 403.141, 403.161, 403.727, or 403.861, Florida Statutes. The Permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of rights, nor any infringement of federal, State, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in this permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the Permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the Permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The Permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the Permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The Permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:
 - (a) Have access to and copy any records that must be kept under conditions of the permit;
 - (b) Inspect the facility, equipment, practices, or operations regulated or required under this permit; and

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(c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the Permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the Permittee shall immediately provide the Department with the following information:

- (a) A description of and cause of noncompliance; and
- (b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

The Permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the Permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The Permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the Permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit or a copy thereof shall be kept at the work site of the permitted activity.

12. The Permittee shall comply with the following:

(a) Upon request, the Permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

(b) The Permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

(c) Records of monitoring information shall include:

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1. the date, exact place, and time of sampling or measurements;
2. the person responsible for performing the sampling or measurements;
3. the dates analyses were performed;
4. the person responsible for performing the analyses;
5. the analytical techniques or methods used;
6. the results of such analyses.

13. When requested by the Department, the Permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the Permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

APPENDIX 2 Approved Application Documents

This Permit includes Department File Number 0002870-017, and is issued in accordance with the application received on July 16, 2015 and supplemented information provided on July 21, 2015, July 24, 2015 and which is further specified below:

Document 1 – *Permit Application to Continue long Term Care Operations, West Nassau Class I Landfill*, prepared by S2L, Incorporated, signed and sealed by Omar E. Smith, P.E., dated July 15 and received July 16, 2014;

Document 2 – *Gas Monitoring Probes Plan*, prepared by S2L, Incorporated, submitted by Omar E. Smith, P.E., on July 21, 2015;

Document 3 – *Gas Extraction Wells*, prepared by S2L, Incorporated, submitted by Omar E. Smith, P.E., on July 21, 2015; and

Document 4 – Revised Figure L-1, prepared by The Colinas Group, Inc., submitted by Richard L. Potts, Jr. P.G., on July 24, 2015.

The following documents were provided with the subject permit minor modification application (DEP file number 2870-018):

Document 5 – *Minor Permit Modification Application, Solid Waste Long Term Care Permit, Closed West Nassau Class I Landfill*, prepared by S2L, Incorporated, signed and sealed by Omar E. Smith, P.E., dated and received March 10, 2020.

Document 6 – *Nassau County, West Nassau Class I Landfill, Permit Modification*, Clarification related to temporary wells TW-DC and TW-DD installation, prepared by S2L, Incorporated, submitted by Omar E. Smith, P.E. on April 2, 2020.

Document 7 – *Nassau County, West Nassau Class I Landfill, Permit Modification*, Revised Figure 1 and Regarding the elevation measurement wells BW-1 and BW-2, extraction well RW-1, and modified ZOD line, prepared by S2L, Incorporated, submitted by Omar E. Smith, P.E. on April 3, 2020.

APPENDIX 3 Water Quality Monitoring Plan

1. **Groundwater Monitoring.** In accordance with Rules 62-701.510 and 62-520.600, F.A.C., the Permittee shall install, place into operation, and maintain a groundwater quality monitoring system.
 - a. General Requirements. The Permittee shall construct new wells, operate, and maintain the groundwater monitoring system and abandon wells in accordance with Chapters 62-520 and 62-701 F.A.C. and with the Groundwater Monitoring Plan, as presented in the Permit Documents noted at the beginning of this Permit and as modified by the conditions specified therein.
 - b. Zone of Discharge. The Zone of Discharge (ZOD) for this facility shall be a three dimensional volume defined in the horizontal plane as extending 100 feet from the permitted edge of the solid waste disposal unit; or to the property boundary; whichever is less, and defined vertically as extending from the top of the ground to the bottom of the surficial aquifer.
 - c. Class G-II Requirements. Pursuant to Rule 62-520.420, F.A.C., the Permittee shall ensure that the water quality standards for Class G-II groundwater shall not be exceeded at the boundary of the ZOD.
 - d. Minimum Criteria. The Permittee shall ensure that the minimum criteria for groundwater specified in Rule 62-520.400, F.A.C., are not violated within the ZOD.
 - e. Monitoring Plan. The Groundwater Monitoring Plan consists of the following wells and piezometers (whose locations and identifications shall be in accordance with APPENDIX 3.1):

Background Well:	MW-25
Detection Wells outside slurry wall:	MW-2 (C-18)
	MW-3R (C-20)
	MW-4 (C-4)
	MW-5 (C-19)
	MW-8 (C-3)
	MW-9 (C-7)
	C-9 through C-14
	C-17
	PZ-CF-12
PZ-CF-13	

Piezometers for water level measurements only:

PZ-CF-1 through PZ-CF-11
BW-1
BW-2

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Piezometers (if needed) for water level measurements only:

MW-3D
MW-10
MW-12
MW-14
D-9
D-10
D-13
D-16
RW-1

Groundwater elevations shall be taken from all Background, Detection, and Groundwater Elevation Only wells during each monitoring event.

If monitoring parameters are detected in detection wells in concentrations that are significantly above background water quality, or that are at levels above groundwater standards or criteria, evaluation monitoring shall be initiated within 90 days of notification by the Department pursuant to Rule 62-701.510(6), F.A.C. including, but not limited to, the installation and sampling of compliance wells associated with the affected detection well(s).

- f. New Well Requirements. The Permittee shall submit, the following information to the Department within 15 days of completion of construction of any new groundwater monitoring well(s) (permanent and temporary):

Well identification	Driller's Lithologic Log
Latitude/Longitude	Total well depth
Aquifer monitored	Casing diameter
Screen type and slot size	Casing type and length
Elevation at top of pipe	Well construction permit number
Elevation at land surface	Depth to groundwater

New groundwater monitoring wells shall be designed and constructed in with Chapter 62-520, F.A.C. and ASTM Standard D-5092. A surveyed drawing shall be submitted showing the horizontal location of all monitoring wells by metes and bounds or equivalent surveying techniques. The surveyed drawing shall include the monitoring well identification number as well as the location and elevation of all permanent benchmark(s) and/or corner monument marker(s) at the site. The survey shall be conducted by a Florida Licensed Professional Surveyor and Mapper.

Unless they are replacement well(s), any newly installed monitoring well(s) shall be sampled and those samples shall be analyzed for the parameters listed APPENDIX 3.2, as required by Rule 62-701.510(7)(a), F.A.C., to establish background groundwater quality.

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Water Quality Monitoring Plan

- g. Well Abandonment. By December 1, 2020, all piezometers and wells not a part of the permit groundwater monitoring plan are to be plugged and abandoned in accordance with St. Johns River Water Management District Rule 40C-3.531. However, a written request for the abandonment of any piezometers or wells shall be submitted to the Department and written approval of the abandonment obtained prior to any abandonment. A written report documenting the plugging and abandonment activities shall be submitted to the Department within 30 days of field activities.
- h. Well Inspection Requirements. A visual inspection of wells and piezometers to assess visible damage shall be conducted in conjunction with the semiannual sampling events. All wells are to be clearly labeled and easily visible at all times. The well components at and above ground surface shall be constructed in a manner that secures and protects the groundwater monitoring wells. At each well location, construction shall include a concrete surface pad and above ground vertical protective casing with a locking cap. The casing and top shall be maintained in good working order, intact and locked. A minimum of two protective bollards shall be placed at the edges of the concrete surface pad. Bollards shall, at a minimum, be the approximate height of the protective casing and constructed of materials capable of providing protection from accidental impact with machinery.
- i. Damaged Well Requirements. In the event any monitoring well becomes damaged or inoperable, the Permittee shall notify the Department within 72 hours and shall submit a detailed written report within seven days. The written report shall detail the problem that has occurred and remedial measures that have been taken to prevent a recurrence. Damaged wells shall be repaired or replaced within 60 days. If a monitoring well is unable to be sampled during its normal time frame, it shall be sampled within 30 days of repair or replacement and its analysis shall be submitted to the Department within 60 days of repair or replacement. All monitoring well design and replacement shall be approved by the Department prior to installation.
- j. Groundwater Levels. Groundwater level measurements shall be collected semiannually from all monitoring wells and piezometers as specified in Specific Condition 1.e. Elevation measurements, referenced to a consistent, nationally recognized datum, shall include groundwater surface elevation, the top of well casing and land surface at each site at a precision of plus or minus 0.01 feet. A groundwater surface contour map shall be constructed by a professional geologist or qualified professional engineer, depicting the locations of wells and corresponding groundwater elevations. This information shall be submitted to the Department in conjunction with the semiannual groundwater monitoring report forms. In the event that the data indicates a variation in the horizontal or vertical flow directions such that existing wells are not adequate to intercept contaminants that may be generated from the Facility, the Permittee shall propose additional wells to correct that deficiency or the Department shall require wells to be installed to correct that deficiency.

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- k. Sampling. Background and detection groundwater monitoring wells shall be sampled and analyzed semi-annually, as specified in Specific Condition 1.e, for the parameters listed in APPENDIX 3.3. The wells shall be sampled before June 30 and December 31 during each year of this Permit. Compliance with groundwater standards and/or criteria shall be determined by analysis of unfiltered groundwater samples, unless the requirements of Rule 62-520.310(5), F.A.C., are satisfied. Additional samples, wells and parameters may be required based upon subsequent analyses.

The Permittee shall collect, analyze, report and retain sampling and monitoring data in accordance with F.A.C. Chapter 62-160 and Rule 62-520.600, F.A.C. Any laboratory test required by this permit shall be performed by a laboratory that is certified by the Department of Health (DOH) under Chapter 64E-1, F.A.C., where such certification is required by Rule 62-160.300, F.A.C. The laboratory must be certified for all specific method/analyte combinations that are used to comply with this permit. Biological evaluations shall follow the applicable procedures in DEP-SOP (July 30, 2014). All field activities including on-site tests and sample collection, whether performed by a laboratory or another organization, must follow all applicable procedures described in DEP-SOP (July 30, 2014). Alternate field procedures and laboratory methods may be used if they have been approved according to the requirements of Rules 62-160.220 and 62-160.330, F.A.C. Minimum detection levels for all analytes shall be at or below groundwater standards and/or criteria for each analyte.

- l. Analytical Data Reports. The Permittee shall submit all groundwater sampling results on the Parameter Monitoring Report Form [DEP Form 62-520.900(2)] along with the analytical laboratory reports and a groundwater contour map no later than 60 days from completion of laboratory analysis. Analytical results shall be accompanied by a brief narrative summary and the Permittee shall include Form 62-701.900(31), Water Quality Monitoring Certification with each report certifying that the laboratory results have been reviewed and approved by the Permittee. The Permittee shall retain the original forms so that the necessary information is available to properly complete future reports.

In addition to the information provided on the Parameter Monitoring Form:

- 1) The laboratory report shall indicate the method on each data sheet, the detection limits and the dilution factor;
- 2) The report shall show, in columnar form, the analytical results and, where applicable, the corresponding Florida Groundwater Standards and/or criteria; and
- 3) The report shall identify all peaks greater than the EPA specified detection limit for the analytical method.

- m. Exceedances. If parameters are detected in monitoring wells in concentrations that are significantly above background water quality, or that are at levels above the Department's water quality standards or criteria specified in Chapter 62-520,

APPENDIX 3 Water Quality Monitoring Plan

F.A.C., the Permittee may resample the wells within 30 days after the sampling data is received to confirm the data. Should the Permittee choose not to resample, the Department will consider the water quality analysis as representative of current groundwater conditions at the facility. If the data is confirmed, or if the Permittee chooses not to resample, the Permittee shall notify the Department in writing within 14 days of this finding.

- n. Report Submittals. Required water quality monitoring reports and all groundwater and surface water analytical results shall be submitted electronically, with one hard copy submitted to the District office, unless the Department indicates otherwise in writing. Water quality monitoring reports shall be submitted in Adobe pdf format. The water quality data Electronic Data Deliverable (EDD) shall be provided to the Department in an electronic format consistent with requirements for importing the data into the Department's databases. Water quality monitoring reports shall be signed and sealed by a Florida registered professional geologist or professional engineer with experience in hydrogeological investigations and shall include the following:

- 1) Cover letter;
- 2) Summary of exceedances and sampling problems, if any (e.g., variation from SOP field criteria);
- 3) Conclusions and recommendations;
- 4) Ground water contour maps;
- 5) Chain of custody forms;
- 6) Water levels, water elevation table;
- 7) Ground Water Monitoring Report Certification, using the appropriate Department form;
- 8) Appropriate sampling information on Form FD 9000-24 (DEP-SOP July 30, 2014); and,
- 9) Laboratory and Field EDDs and error logs, as applicable.

All submittals in response to this specific condition shall be sent to the District Office and to:

Florida Department of Environmental Protection
Solid Waste Section, MS 4565
2600 Blair Stone Road
Tallahassee, Florida, 32399-2400

- o. Technical Reports. The Permittee shall monitor site-specific conditions in addition to the data obtained from the ground water monitoring system. A technical report shall be submitted by July 1, 2020 and by 61 days prior to the expiration of the standard 10-year long term care period. The technical reports shall contain the following:

- 1) Tabular displays of any data that shows a monitoring parameter has been detected and graphical displays of any detected leachate key indicator

APPENDIX 3 Water Quality Monitoring Plan

parameters (such as pH, specific conductance, TDS, TOC, sulfate, chloride, sodium and iron), including hydrographs for all monitoring wells;

- 2) Trend analyses of any monitoring parameters consistently detected;
- 3) Comparisons among shallow, middle and deep zone wells;
- 4) Comparisons between background water quality and the water quality in detection and compliance wells;
- 5) Correlations between related parameters such as total dissolved solids and specific conductance;
- 6) Discussion of erratic and/or poorly correlated data;
- 7) An interpretation of the ground water contour maps, including an evaluation of ground water flow rates; and
- 8) An evaluation of the adequacy of the water quality monitoring frequency and sampling locations based upon site conditions.

The report shall contain an evaluation of the ground and surface water monitoring programs and the adequacy of the monitoring frequency and analyses shall be determined. The Permittee shall have this report prepared, signed and sealed by a professional geologist or qualified professional engineer.

- p. Monitoring Plan Amendments. Based on any information or data obtained after the effective date of this permit, the Department reserves the right to modify the conditions set forth herein pursuant to the latest state Rules and regulations (before or after the effective date of this permit); and may modify the permit conditions to address additional groundwater assessment, additional monitoring wells and/or analytical parameters and compliance monitoring.

2. **Surface Water Monitoring.** Surface waters shall be sampled and analyzed semi-annually in conjunction with the groundwater monitoring program to assess how surface water quality has been affected by the landfill's activities. The following Surface Water Monitoring Program shall be implemented:
 - a. General Requirements. The Surface Water Monitoring Program shall be conducted in accordance with plans submitted to the Department, as modified by the conditions specified in this Permit.
 - b. Surface Water Requirements. Pursuant to Rule 62-302.300, F.A.C., the Permittee shall ensure that the applicable surface water standards are not exceeded.
 - c. Sample Locations. Surface water sampling shall be conducted in accordance with Section 62-701.510(4), F.A.C. at the outfall when the stormwater pond is discharging to waters of the state or from the property, whichever is closer. The sampling results shall be compared to the surface water standards specified in Chapter 62-302, F.A.C. The approximate location of the surface water monitoring point SW-3 is designated on APPENDIX 3.1.
 - d. Surface Water Sampling. Surface water sampling point shall be sampled and analyzed on a semi-annual basis for the parameters listed in APPENDIX 3.5.

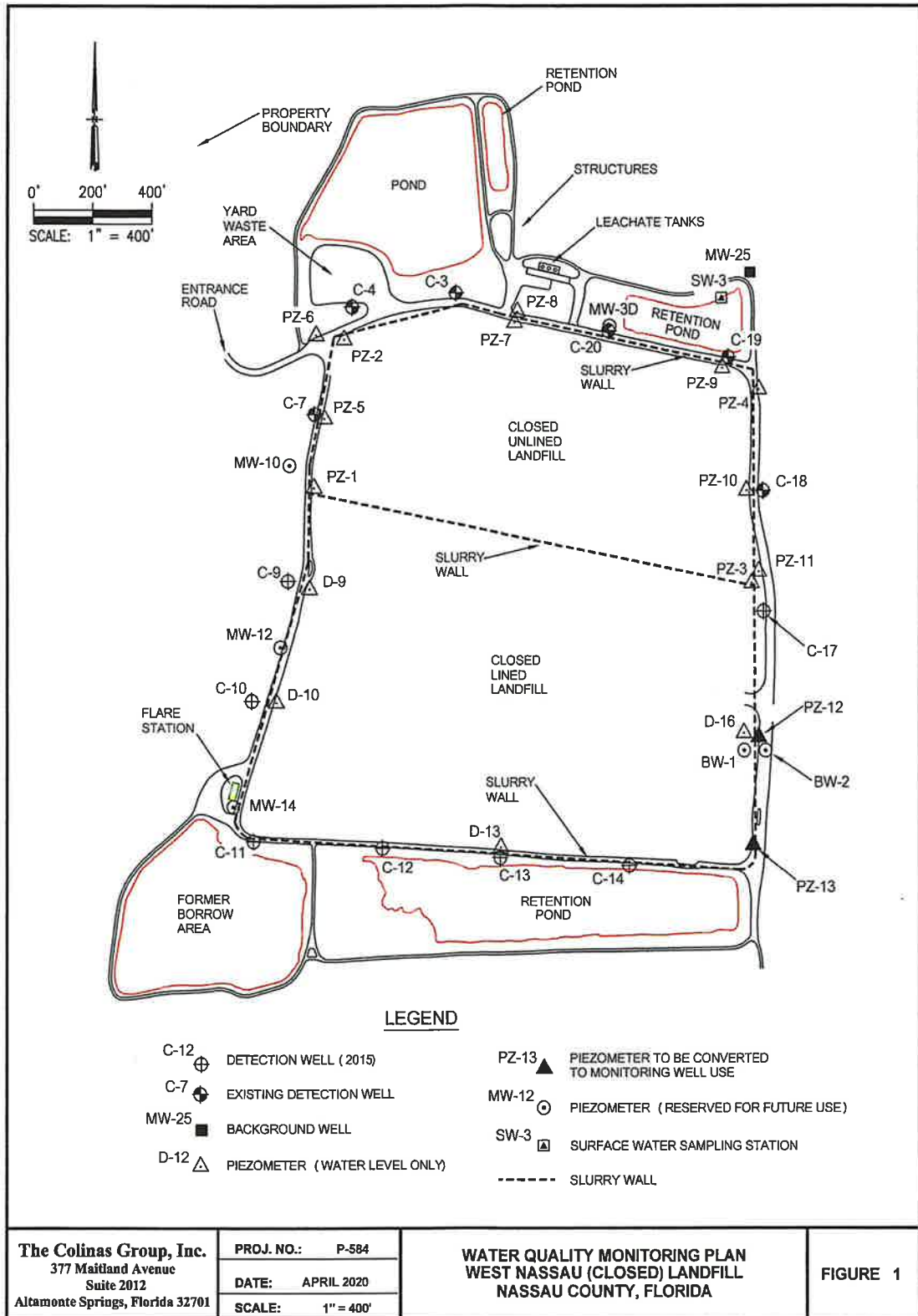
APPENDIX 3

Water Quality Monitoring Plan

However, additional sampling points and parameters may be required based upon subsequent analyses.

- e. Surface Water Reporting. All surface water sampling results shall be reported in accordance with Specific Conditions 1.n and 1.o and submitted as part of the semiannual groundwater monitoring reports.

APPENDIX 3.1 Water Quality Monitoring Plan



APPENDIX 3.2
Initial Background Groundwater Parameters

Field Parameters

Static water level in wells before purging
Specific Conductivity
pH
Dissolved Oxygen
Turbidity
Temperature
Colors and Sheens (by observation)

Laboratory Parameters

Total Ammonia – N
Chlorides
Iron
Mercury
Nitrate
Sodium
Total Dissolved Solids (TDS)
Those parameters listed in 40 CFR Part
258 Appendix I & II

APPENDIX 3.3
Semi-Annual Groundwater Parameters

Field Parameters

Static water level in wells before purging
Specific Conductivity
pH
Dissolved Oxygen
Turbidity
Temperature
Colors and Sheens (by observation)

Laboratory Parameters

Total Ammonia – N
Chlorides
Iron
Mercury
Nitrate
Sodium
Total Dissolved Solids (TDS)
Those parameters listed in 40 CFR Part
258 Appendix I

APPENDIX 3.4
GUIDANCE FOR SUBMITTING ELECTRONIC WATER QUALITY
DATA TO THE SOLID & HAZARDOUS WASTE PROGRAMS
October 20, 2017

I. General Information

Water quality monitoring reports and all groundwater, surface water, and leachate (when required) analytical results for the Solid & Hazardous Waste Programs shall be submitted to the Department electronically via email, FTP site, compact disc, or flash drive media readable by Microsoft Windows. Water quality monitoring reports shall be submitted in Adobe PDF format. Unless otherwise approved by the Department, the water quality Electronic Data Deliverable (EDD) shall be compatible with software called Florida DEP Automated Data Processing Tool (ADaPT). ADaPT has been developed to evaluate and upload water quality data into the Department's Water Assurance Compliance System (WACS) database. A copy of this ADaPT software with installation instructions and EDD specifications can be downloaded from the following website address: <https://www.floridadep.gov/waste/waste/content/adapt>

II. Monitoring Report

The groundwater monitoring report shall be submitted in Adobe PDF format, with the EDD as an attachment, and shall include the following items:

1. Cover letter;
2. Summary of exceedances and recommendations;
3. Groundwater contour maps;
4. Chain of custody forms;
5. Water levels, water elevation table;
6. Groundwater Monitoring Report Certification, using the appropriate Department form;
7. Appropriate sampling information on Form FD 9000-24 (DEP-SOP-001/01); and,
8. Laboratory EDDs and associated Lab EDD ErrorLogs, Field EDDs that are compatible with ADaPT software and ADaPT export file(s).

The monitoring report (including ADaPT EDDs) should be emailed to Tallahassee using the following email address: ADaPT.EDDs.and.Reports@dep.state.fl.us. Refer to Section III below for file nomenclature details.

Submit all ADaPT files in a single zip file named as follows: 12345_200811_swldd.zip
Submit the monitoring report in a single (text, no scanned content) PDF file named as follows:

12345_200811_swgwmr.pdf

Please do not submit multiple documents for the monitoring report; combine all documents in a single PDF document. Less preferable, zip these documents into a single zip file named as follows:

12345_200811_swgwmr.zip

APPENDIX 3.4
GUIDANCE FOR SUBMITTING ELECTRONIC WATER QUALITY
DATA TO THE SOLID & HAZARDOUS WASTE PROGRAMS
October 20, 2017

If attachments are too large to email, monitoring reports may also be transmitted to the FDEP Solid Waste program in Tallahassee using the following FTP site:
ftp://ftp.dep.state.fl.us/pub/WACS-ADaPT/EDDS_and_Reports

Note: When submitting files to the FTP site, please combine all ADaPT EDDs and the groundwater monitoring report into a single zip file (sw_12345_200811_gwmmr.zip). Please email us at ADaPT.EDDs.and.Reports@dep.state.fl.us informing us of what files were transmitted via FTP for which facility sampling event.

If you are unable to submit the groundwater monitoring report electronically via email or FTP, it can also be sent by regular mail to:

Florida Department of Environmental Protection
Northeast District Office
8800 Baymeadows Way West, Suite 100
Jacksonville, Florida 32256

And to:

Florida Department of Environmental Protection
Solid Waste Section, MS 4565
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Please see a list of District Office addresses at the end of this document.

III. ADaPT EDDs

The ADaPT EDD consists of two electronic deliverables: (1) a Laboratory EDD, identified as swldd.txt; and (2) a Field EDD identified as swfdd.txt

The Laboratory EDD shall be submitted in a comma separated (csv format) text file using the .txt filename extension. The Laboratory EDD file name format shall be: [WACS Facility I.D] underscore [Begin Sampling Year and Month (yyyymm)] underscore SWldd.txt. The period at the end would not be included. For example, with WACS Facility I.D. # 12345 where sampling started in November and ended in December of 2008, the Laboratory EDD file name should be: 12345_200811_swldd.txt

The Field EDD shall be submitted in the same comma separated (.csv format) text file as the Laboratory EDD. The Field EDD file name format shall be: [WACS Facility I.D.] underscore [Begin Sampling Year and Month (yyyymm)] underscore swfdd.txt. Again, the period at the end is not included. For example, with WACS Facility I.D. #

APPENDIX 3.4
GUIDANCE FOR SUBMITTING ELECTRONIC WATER QUALITY
DATA TO THE SOLID & HAZARDOUS WASTE PROGRAMS
October 20, 2017

12345 where sampling started in November and ended in December of 2008, the file name should be: 12345_200811_swfdd.txt

For confirmation sampling, add the term “_conf” to the EDD filenames as follows:
12345_200811_conf_swlidd.txt for the Laboratory EDD or
12345_200811_conf_swfdd.txt for the Field EDD.

For radiochemistry results, add the term “_rad” similar to confirmation sampling indicated above.

IV. Signatures Required

Water quality monitoring reports shall be signed and sealed by a Florida registered professional geologist or professional engineer with experience in hydrogeological investigations. An electronic signed and sealed signature page may be submitted with the report provided a stamped seal is used. If a raised seal is used, ensure that the seal is legible (gray the embossed seal and scan). Otherwise, you must separately mail the signed and sealed page.

V. Process Required

Three steps are generally required. First, the Laboratory EDD, in comma separated text format, must be submitted by the laboratory. In order to validate the QA/QC aspects of the Laboratory EDD, the permittee shall ensure the laboratory processes the Laboratory EDD through ADaPT using both their laboratory specific library and the Department's Division of Waste Management Master library and corrects all critical errors and explains all non-critical errors prior to submittal. Second, the appropriate entity (laboratory, consultant, or permittee) shall process the Field EDD through ADaPT and correct all Field EDD errors prior to submittal. Finally, as a completeness check, the laboratory, permittee or consultant shall process both the Laboratory EDD and the Field EDD through ADaPT and confirm a successful export to disk and submit the ADaPT generated export file (ADaPTYYYMMDDHHMMSS.txt).

VI. Resources

In the event help is needed to prepare these EDDs, you can contact Clark Moore, clark.b.moore@dep.state.fl.us, (850) 245-8739 or by emailing ADaPT.EDDs.and.Reports@dep.state.fl.us

If monitoring test site information needs updating in the WACS Oracle database, or if you need help in submitting the groundwater monitoring report, please contact the Department's Solid Waste staff at the appropriate District office:

Northwest District Office
160 Governmental Center, Suite 308
Pensacola, Florida 32502
(850) 595-8300

APPENDIX 3.4
GUIDANCE FOR SUBMITTING ELECTRONIC WATER QUALITY
DATA TO THE SOLID & HAZARDOUS WASTE PROGRAMS
October 20, 2017

Northeast District Office
8800 Baymeadows Way West, Suite 100
Jacksonville, FL 32256
(904) 256-1700

Central District Office
3319 Maguire Boulevard, Suite 232
Orlando, FL 32803
(407) 897-4100

Southwest District Office
13051 N. Telecom Parkway
Temple Terrace, Florida 33637
(813) 470-5700

Southeast District Office
3301 Gun Club Road, MSC7210-1
West Palm Beach, Florida 33406
(561) 681-6600

South District Office
P.O. Box 2549
2295 Victoria Avenue, Suite 364
Fort Myers, Florida 33902
(239) 344-5600

APPENDIX 3.5
Initial Background and Semi-annual Surface Water Parameters

Field Parameters

Specific Conductivity
pH
Dissolved Oxygen
Turbidity
Temperature
Colors, Sheens (by observation)

Laboratory Parameters

Unionized Ammonia
Total Hardness (as mg/L CaCO₃)
Biochemical Oxygen Demand (BOD₅)
Iron
Mercury
Nitrate
Total Dissolved Solids (TDS)
Total Organic Carbon (TOC)
Fecal Coliform
Total Phosphorus
Chlorophyll-A
Total Nitrogen
Chemical Oxygen Demand (COD)
Total Suspended Solids (TSS)
Those Parameters listed in 40 CFR 258,
Appendix I

ATTACHMENT 1 Vicinity Map

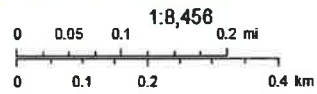


ATTACHMENT 2 Aerial Map

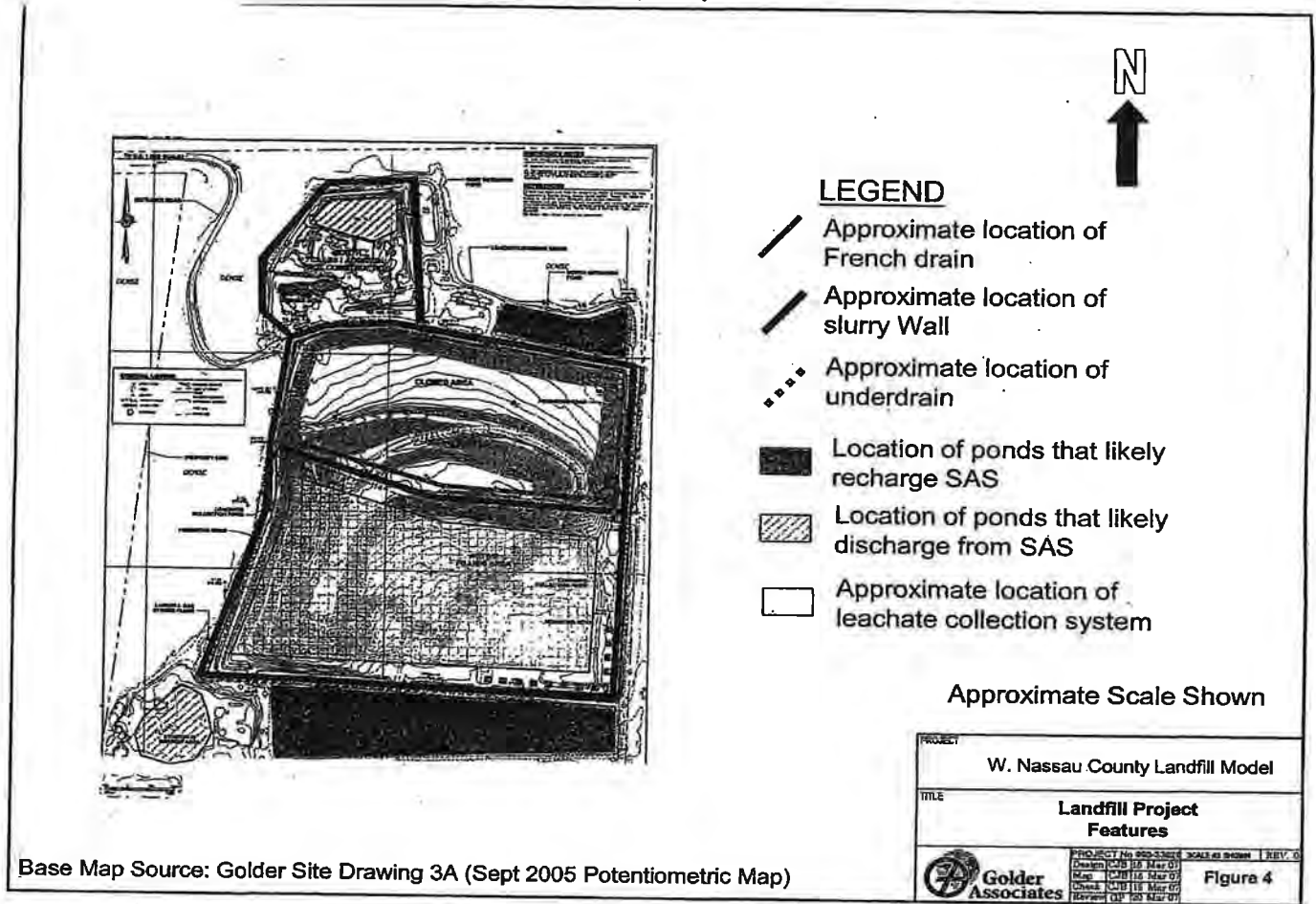
West Nassau Landfill Aerial Map



July 17, 2015



ATTACHMENT 3
Locations of French Drain, Slurry Wall, and Underdrain



Base Map Source: Golder Site Drawing 3A (Sept 2005 Potentiometric Map)

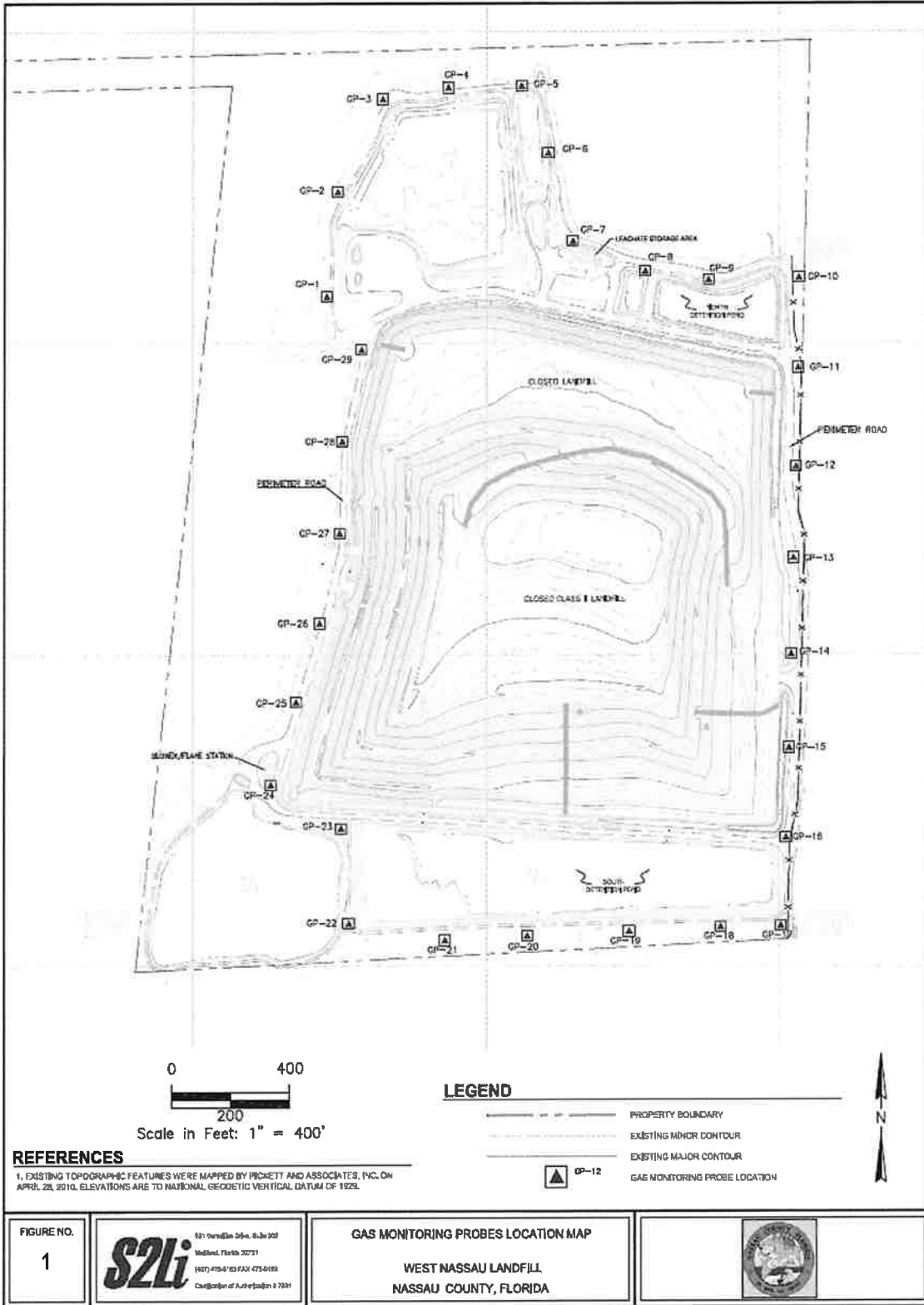
ATTACHMENT 4 Monthly Inspection Checklist

TABLE 1 LONG-TERM CARE INSPECTION FORM (Page 1 of 3)					
LANDFILL: _____			OWNER: _____		
Observation Report Number: _____			Date of Observation: ___/___/___		
Time Arrived On-Site: _____			Time Departed Site: _____		
Field Personnel: _____					
	YES (1)	NO	NOT OBSERVED	APPROXIMATE TIME PERIOD FOR CORRECTION (2)	COMMENT NO.
Section A: Site Security					
1. Entry sign damaged or missing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14 days	
2. Any corrosion or damage to perimeter fence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14 days	
3. Any damage to gates and locks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14 days	
Section B: Roads					
1. Access compromised by road conditions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14 days	
2. Perimeter road compromised by road conditions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14 days	
Section C: Final Cover System					
1. Evidence of settlement or ponding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	
2. Evidence of erosion, cracks or gullies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14 days	
3. Evidence of erosion or sedimentation of sideslope runoff control terraces	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14 days	
4. Inadequate or stressed grass cover	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	
5. Evidence of blockage/clogging of underdrain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	
6. Grass height generally greater than 18 to 30 inches	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7 days	
7. Growth of damaging weeds or saplings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7 days	
8. Evidence of leachate release	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	
Section D: Leachate Collection System					
1. Visible damage to pumps, berms, sumps, force mains or storage tanks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14 days	
2. Abnormal flowrates or odors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	60 days	
Section E: Drainage Structures					
1. Blockage at entrance or obstructions in path flow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7 days	
2. Settlement of the structures/pipes/channels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	
3. Settlement in the terraces/channels/pipe cover	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	
4. Excessive siltng	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14 days	
5. Damage/cracks in structures/pipes/channels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14 days	
(1) If yes, assign a comment number and see Page 3 for instructions. (2) Approximate number of days from detection for correction of the inspection item.					
Signature of Observer: _____				Date of Observation: ___/___/___	

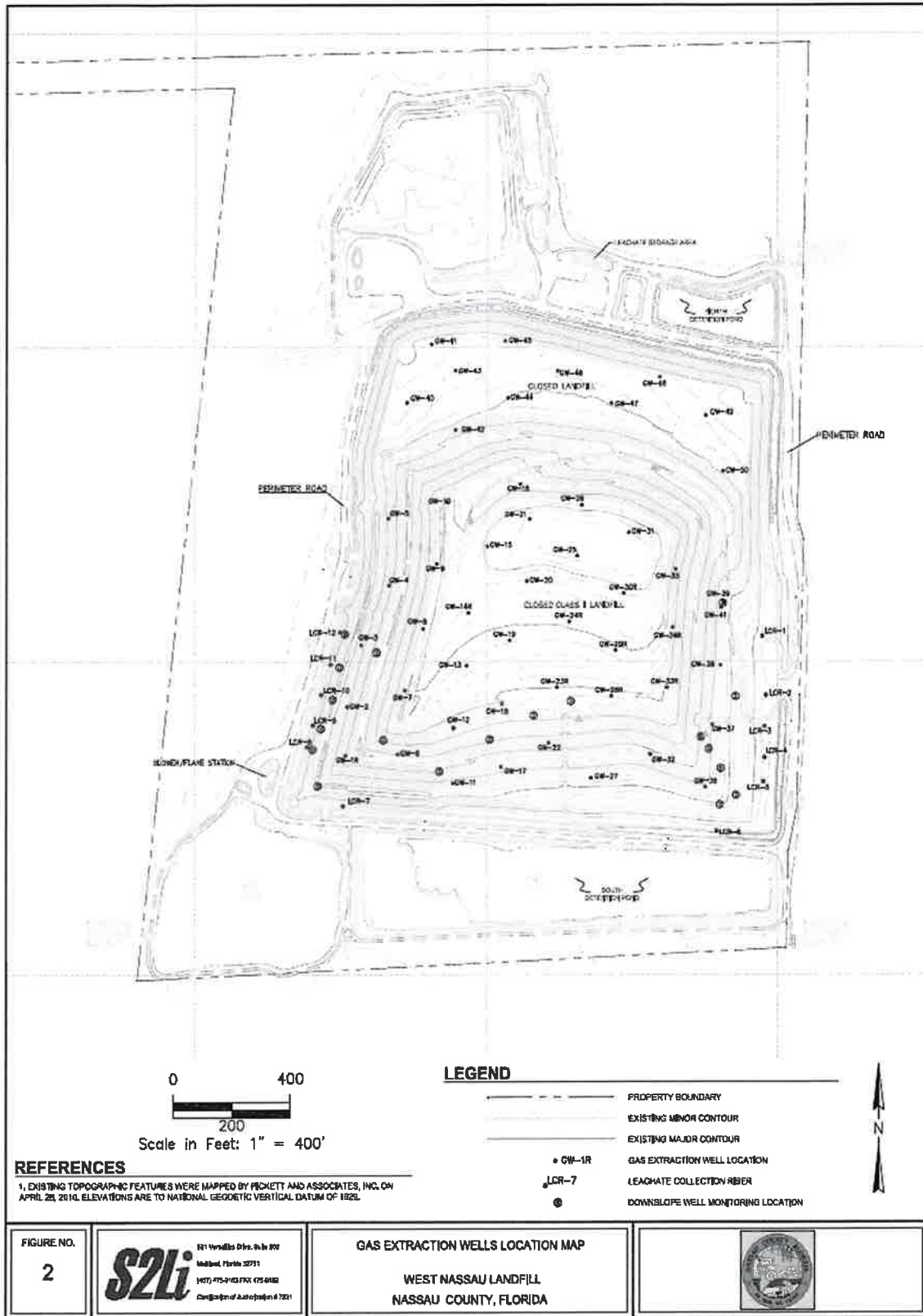
ATTACHMENT 4 Monthly Inspection Checklist (Cont.)

TABLE 1 LONG-TERM CARE INSPECTION FORM (Page 2 of 3)					
LANDFILL: _____			OWNER: _____		
Observation Report Number: _____			Date of Observation: ___/___/___		
	YES (1)	NO	NOT OBSERVED	APPROXIMATE TIME PERIOD FOR CORRECTION (2)	COMMENT NO.
Section F: Perimeter Drainage System					
1. Sloughing of ditch slopes or berms ditches, impairment of flow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14 days	
2. Blockage or obstructions in the discharge structures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14 days	
3. Damaged/malfunctioning detention ponds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14 days	
4. Erosion of ditch slopes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14 days	
5. Vegetation height generally greater than 18 to 30 inches	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14 days	
6. Problems associated with silting, sediment level or deposits in ditches, piping, or ponds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	
Section G: Landfill Gas Management System					
1. Visible damage to system components (i.e. wells, condensate piping header piping, flare station components)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15 days	
2. Blockage in pipes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15 days	
3. Local settlement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15 days	
4. Odors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15 days	
Section H: Ground Water Monitoring Wells/Gas Monitoring Probes					
1. Protective casing missing or damaged	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	
2. Concrete pads damaged or cracked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	
3. Well/Probe Labels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	
Section I: Benchmarks and Limits					
1. Benchmarks in unacceptable condition and/or not visual	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	
2. Limit of waste markers, damaged or missing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	
Section J: Miscellaneous (Site Specific)					
1.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___ days	
2.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___ days	
3.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___ days	
4.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___ days	
(1) If yes, assign a comment number and see Page 3 for instructions. (2) Approximate number of days from detection for correction of the inspection item.					
Signature of Observer: _____				Date of Observation: ___/___/___	

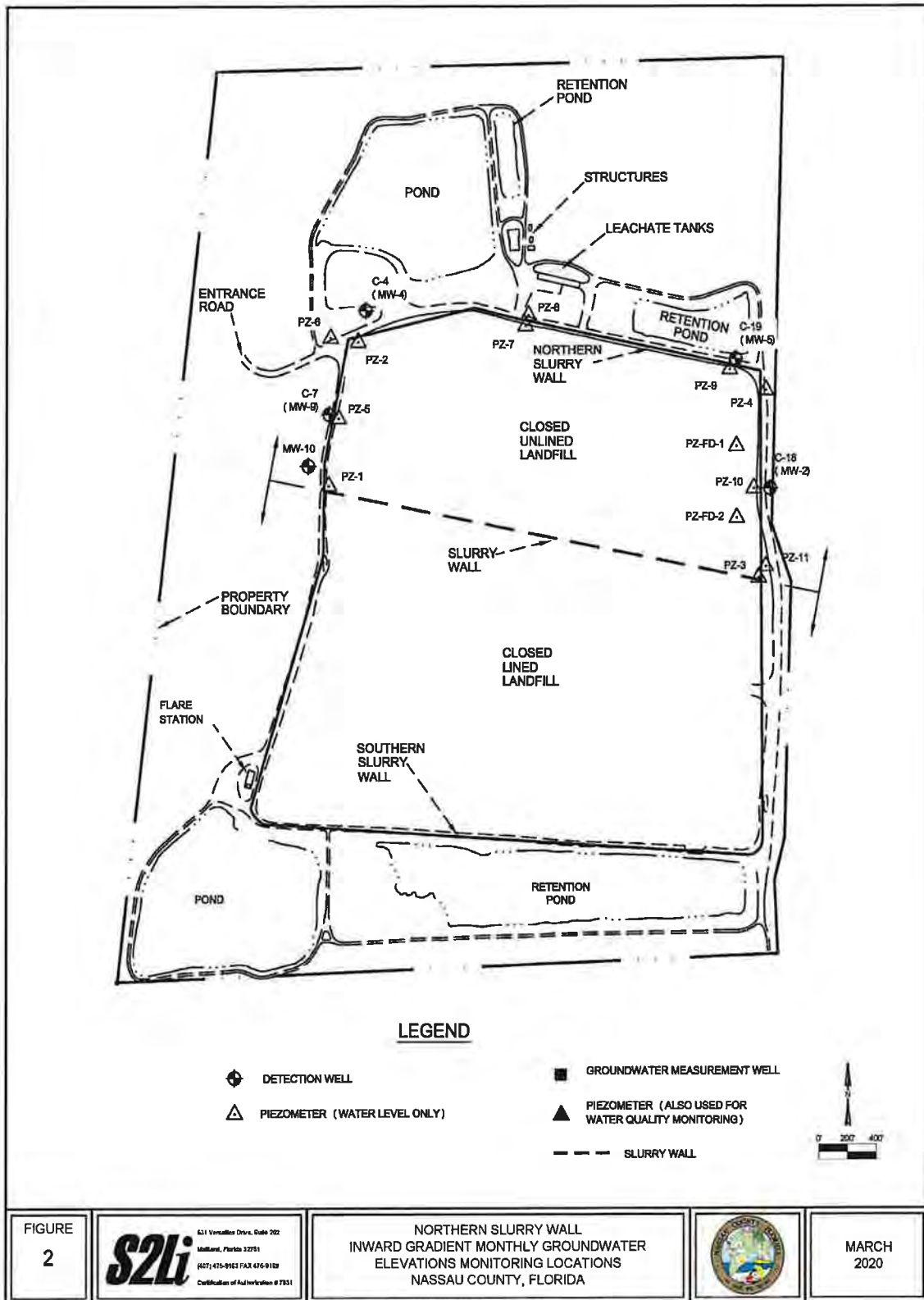
ATTACHMENT 5 Site Plan with Gas Monitoring Probes Locations



ATTACHMENT 6 Site Plan with Gas Extraction Wells Locations



ATTACHMENT 7 Northern Slurry Wall Inward Gradient Wells Locations





FLORIDA DEPARTMENT OF Environmental Protection

Northeast District
8800 Baymeadows Way West, Suite 100
Jacksonville, Florida 32256

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

NOTICE OF FINAL PERMIT

*In the Matter of an
Application for Permit by:*

Robert Companion
Nassau County Board of County Commissioners
96161 Nassau Place
Yulee, Florida 32097

Permit No. 0890428-014-AV
West Nassau Class I Landfill
Title V Air Operation Permit Renewal
Nassau County

Responsible Official:
Robert Companion, Nassau County Board of
County Commissioners

Enclosed is the final permit package to renew the Title V air operation permit for the West Nassau Class I Landfill. The existing facility is located in Nassau County at 46026 Landfill Road, Callahan, Florida. This permit is issued pursuant to Chapter 403, Florida Statutes.

Any party to this order has the right to seek judicial review of it under Section 120.68 of the Florida Statutes by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel (Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000) and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within 30 days after this order is filed with the clerk of the Department.

EXECUTION AND CLERKING:

Executed in Jacksonville, Florida.
STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Thomas G. Kallemeyn
Permitting Program Administrator

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this permit and all copies were sent on the filing date below to the following listed persons:

Robert Companion, Nassau County Board of County Commissioners, rcompanion@nassaucountyfl.com
Sara Greivell, Grove Scientific & Engineering Company, sara@grovescientific.com

FILING AND ACKNOWLEDGMENT

FILED, on this date, pursuant to Section 120.52, F. S., with the designated Department Clerk, receipt of which is hereby acknowledged.

Clerk November 21, 2019
Date

Clerk Stamp

FILED AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency clerk, receipt of which is hereby acknowledged.

FINAL DETERMINATION

PERMITTEE

Robert Companion
Interim County Engineer
Nassau County Board of County Commissioners
96161 Nassau Place
Yulee, FL 32097

PERMITTING AUTHORITY

Florida Department of Environmental Protection (Department)
Northeast District Office
8800 Baymeadows Way West, Suite 100
Jacksonville, FL 32256

PROJECT

Title V Air Operation Permit Renewal
Permit No. 0890428-014-AV
West Nassau Class I Landfill

The purpose of this permitting project is for the renewal of the existing Title V air operation permit for the above referenced facility with no requested changes.

NOTICE AND PUBLICATION

The Department distributed an Intent to Issue Air Permit package on September 16, 2019. The applicant published the Public Notice of Intent to Issue Air Permit in the News Leader – Nassau County newspaper on September 25, 2019. The Department received the proof of publication on October 7, 2019. A proposed permit was issued for EPA review on October 7, 2019.

COMMENTS

No comments or minor comments were received from the applicant or the EPA Region 4 office.

CONCLUSION

The final action of the Department is to issue the permit with no changes.

**Nassau County
Board of County Commissioners
West Nassau Class I Landfill**

Facility ID No. 0890428
Nassau County

Title V Air Operation Permit Renewal

Permit No. 0890428-014-AV
(Renewal of Title V Air Operation Permit No. 0890428-009-AV)



**Permitting & Compliance
Authority:**

State of Florida
Northeast District
8800 Baymeadows Way West, Suite 100
Jacksonville, Florida 32256
Telephone: (904) 256-1700
Email: DEP_NED@FloridaDEP.gov

Nassau County Board of County Commissioners

West Nassau Class I Landfill

Title V Air Operation Permit Renewal

Permit No. 0890428-014-AV

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III. Emissions Units and Conditions.		
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B. Emission Unit 002, Landfill Gas Flare (1,000 scfm blower)		24
C. Emission Unit 003, East Side Emergency Diesel Generator (40.2 HP)		30
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Appendix ASP, Leachate Collection Cleanout Risers – Oxygen Intrusion.		
Appendix I, List of Insignificant Emissions Units and/or Activities.		
Appendix NESHAP, Subpart A of 40 CFR 61 – General Provisions.		
Appendix NESHAP, Subpart M – National Emission Standards for Asbestos.		
Appendix NESHAP, Subpart A of 40 CFR 63 – General Provisions		
Appendix NESHAP, Subpart AAAA – National Emission Standards for Hazardous Air Pollutants (NESHAP) for Municipal Solid Waste (MSW) Landfills.		
Appendix NESHAP, Subpart ZZZZ – NESHAP for Stationary Reciprocating Internal Combustion Engines.		
Appendix NSPS, Subpart A of 40 CFR 60 – General Provisions.		
Appendix NSPS, Subpart WWW – Standards of Performance for MSW Landfills.		
Appendix NSPS, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.		
Appendix RR, Facility-wide Reporting Requirements.		
Appendix TR, Facility-wide Testing Requirements.		
Appendix TV, Title V General Conditions.		
Referenced Attachments.....	At End	
Figure 1, Summary Report-Gaseous and Opacity Excess Emission and Monitoring System Performance (40 CFR 60, July, 1996).		
Table H, Permit History.		
Table 1, Summary of Air Pollutant Standards and Terms.		
Table 2, Compliance Requirements.		
Etc.		



FLORIDA DEPARTMENT OF Environmental Protection

Northeast District
8800 Baymeadows Way West, Suite 100
Jacksonville, Florida 32256

Ron DeSantis
Governor

Jeanette Nunez
Lt. Governor

Noah Valenstein
Secretary

PERMITTEE:
Nassau County Board of County Commissioners
96161 Nassau Place
Yulee, Florida 32097

Permit No. 0890428-014-AV
West Nassau Class I Landfill
Facility ID No. 0890428
Title V Air Operation Permit Renewal

The purpose of this permit is to renew the Title V air operation permit for the above referenced facility. The existing West Nassau Class I Landfill is located in Nassau County at 46026 Landfill Road, Callahan, Florida. UTM Coordinates are: Zone 17, 421.15 kilometers (km) East and 3386.33 km North. Latitude is: 30°36'25" North; and, Longitude is: 81°49'21" West.

The Title V air operation permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213. The above-named permittee is hereby authorized to operate the facility in accordance with the terms and conditions of this permit.

0890428-014-AV Effective Date: November 21, 2019
Renewal Application Due Date: April 10, 2024
Expiration Date: November 21, 2024

Executed in Jacksonville, Florida.
STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Thomas G. Kallemeyn
Permitting Program Administrator

TGK/seg:cc

SECTION I. FACILITY INFORMATION.

Subsection A. Facility Description.

West Nassau Class I Landfill is an existing municipal solid waste (MSW) landfill, which is categorized under Standard Industrial Classification Code No. 4953.

The landfill is comprised of closed unlined cells and closed lined cells. The landfill stopped accepting waste for disposal on October 1, 2009 and entered long-term care on March 25, 2013. The final capacity of the lined portion of the landfill is approximately 3,920,000 cubic yards (2,997,100 cubic meters), and the unlined portion of the landfill is approximately 730,000 cubic yards (562,100 cubic meters). The total permitted landfill capacity (by solid waste program) is approximately 4.65 million cubic yards (3,555,000 cubic meters).

The landfill consists of an active gas collection system that uses a mechanical blower to create a vacuum that draws landfill gas through deposited refuse and into gas collection wells. The system currently consists of 50 landfill gas extraction wells and approximately 11,000 linear feet of header pipe (ranging from 14 inches (") in diameter to 8" in diameter). The facility also consists of 12 leachate collection system cleanout risers that can be used to extract landfill gas. The collected landfill gas is controlled by 2,000 standard cubic feet per minute (scfm) candlestick flare with a limited maximum throughput from an 800 scfm blower. The landfill also includes five diesel fired emergency generators (EU 003 – EU 007). The landfill does not contain a bioreactor.

Subsection B. Summary of Emissions Units.

EU No.	Brief Description
<i>Regulated Emissions Units</i>	
001	Municipal Solid Waste Landfill
002	Landfill Gas Utility Flare
003	East Side Emergency Diesel Generator (40.2 bhp)
004	Up Front Emergency Diesel Generator (67.1 HP)
005	Flare Emergency Diesel Generator (167.6 HP)
006	Leachate Tanks Emergency Diesel Generator (174.3 HP)
007	West Side Emergency Diesel Generator (50 HP)

Also included in this permit are miscellaneous insignificant emissions units and/or activities (see Appendix I, List of Insignificant Emissions Units and/or Activities).

SECTION I. FACILITY INFORMATION.

Subsection C. Applicable Regulations.

Based on the Title V air operation permit renewal application received August 19, 2019, this facility is not a major source of hazardous air pollutants (HAP). This facility is no longer classified as a prevention of significant deterioration (PSD) major source. According to the LandGem model, landfill gas generated from the closed landfill has reduced and the blower was replaced to accommodate the actual volumetric flow rate of the landfill gas to the flare from 2,000 scfm to 800 scfm. The closed landfill is currently showing all pollutants to be less than 100 tons/year, which is below the 250 tons/year PSD threshold.

A summary of applicable regulations is shown in the following table.

Regulation	EU No(s).
<i>Federal Rule Citations</i>	
40 CFR 60, Subpart A, NSPS General Provisions	001 - 007
40 CFR 60, Subpart WWW: NSPS Standards of Performance for MSW Landfills	001 & 002
40 CFR 60, Subpart IIII: NSPS Standards of Performance for Stationary CI ICE	003 - 007
40 CFR 61, Subpart A: NESHAP General Provisions	001
40 CFR 61, Subpart M: NESHAP for Asbestos	001
40 CFR 63, Subpart A: NESHAP General Provisions	001 & 007
40 CFR 63, Subpart AAAA: NESHAP MSW Landfill	001 & 002
40 CFR 63, Subpart ZZZZ: NESHAP for Stationary RICE	007
<i>State Rule Citations</i>	
Rule 62-4, F.A.C.: Permits	001 - 007
Rule 62-204, F.A.C.: Air Pollution Control – General Provisions	
Rule 62-210, F.A.C.: Stationary Sources – General requirements	
Rule 62-213, F.A.C.: Operation Permits for Major Sources of Air Pollution	
Rule 62-296, F.A.C.: Stationary Sources – Emission Standards	
Rule 62-297, F.A.C.: Stationary Sources – Emissions Monitoring	001 - 007

SECTION II. FACILITY-WIDE CONDITIONS.

The following conditions apply facility-wide to all emission units and activities:

FW1. Appendices. The permittee must comply with all documents identified in Section IV, Appendices, listed in the Table of Contents. Each document is an enforceable part of this permit unless otherwise indicated. [Rule 62-213.440, F.A.C.]

Emissions and Controls

FW2. Not federally enforceable. Objectionable Odor Prohibited. No person must cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An "objectionable odor" means any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [Rule 62-296.320(2) and 62-210.200(Definitions), F.A.C.]

FW3. Odor Remediation Plan. The facility must be operated to control objectionable odors in accordance with subsection 62-296.320(2), F.A.C. After being notified by the Department that objectionable odors have been confirmed beyond the landfill property boundary, the permittee must:

- Immediately take steps to reduce the objectionable odors. Such steps may include applying or increasing initial cover, reducing the size of the working face, and ceasing operations in the areas where odors have been detected;
- Submit to the Department for approval an odor remediation plan for the gas releases. The plan must describe the nature and extent of the problem and the proposed long-term remedy. The remedy must be initiated within 30 days of approval.
- Implement a routine odor monitoring program to determine the timing and extent of any off-site odors, and to evaluate the effectiveness of the odor remediation plan.

[Rule 62-701.530(3)(b), F.A.C.]

FW4. General Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee must allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed-necessary and ordered by the Department. [Rule 62-296.320(1), F.A.C.]

{Permitting Note: Nothing is deemed necessary and ordered at this time.}

FW5. General Visible Emissions. No person must cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20% opacity. This regulation does not impose a specific testing requirement. [Rule 62-296.320(4)(b), F.A.C.]

FW6. Unconfined Particulate Matter. No person must cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction; alteration; demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions. Reasonable precautions to prevent emissions of unconfined particulate matter at this facility include:

- Paving and maintenance of roads, parking areas and yards as needed.
- Application of water as necessary to minimize particulate emissions from miscellaneous activities onsite.
- Landscaping and maintenance of vegetation, including regular mowing.

[Rule 62-296.320(4)(c), F.A.C.; and, proposed by applicant in Title V air operation permit renewal application received August 19, 2019.]

Reports and Fees

See Appendix RR, Facility-wide Reporting Requirements for additional details and requirements.

SECTION II. FACILITY-WIDE CONDITIONS.

FW7. Electronic Annual Operating Report and Title V Annual Emissions Fees. The information required by the Annual Operating Report for Air Pollutant Emitting Facility [Including Title V Source Emissions Fee Calculation] (DEP Form No. 62-210.900(5)) must be submitted by April 1 of each year, for the previous calendar year, to the Department of Environmental Protection's (DEP) Division of Air Resource Management. Each Title V source must submit the annual operating report using the DEP's Electronic Annual Operating Report (EAOR) software, unless the Title V source claims a technical or financial hardship by submitting DEP Form No. 62-210.900(5) to the DEP Division of Air Resource Management instead of using the reporting software. Emissions must be computed in accordance with the provisions of subsection 62-210.370(2), F.A.C. Each Title V source must pay between January 15 and April 1 of each year an annual emissions fee in an amount determined as set forth in subsection 62-213.205(1), F.A.C. The annual fee must only apply to those regulated pollutants, except carbon monoxide and greenhouse gases, for which an allowable numeric emission-limiting standard is specified in the source's most recent construction permit or operation permit. Upon completing the required EAOR entries, the EAOR Title V Fee Invoice can be printed by the source showing which of the reported emissions are subject to the fee and the total Title V Annual Emissions Fee that is due. The submission of the annual Title V emissions fee payment is also due (postmarked) by April 1st of each year. A copy of the system-generated EAOR Title V Annual Emissions Fee Invoice and the indicated total fee must be submitted to: **Major Air Pollution Source Annual Emissions Fee, Post Office Box 3070, Tallahassee, Florida 32315-3070.** Additional information is available by accessing the Title V Annual Emissions Fee On-line Information Center at the following Internet web site: <http://www.dep.state.fl.us/air/emission/tvfee.htm>. [Rules 62-210.370(3), 62-210.900 & 62-213.205, F.A.C.; and, §403.0872(11), Florida Statutes (2013)]

{Permitting Note: Resources to help you complete your AOR are available on the electronic AOR (EAOR) website at: <http://www.dep.state.fl.us/air/emission/eaor>. If you have questions or need assistance after reviewing the information posted on the EAOR website, please contact the Department by phone at (850) 717-9000 or email at eaor@dep.state.fl.us.}

{Permitting Note: The Title V Annual Emissions Fee form (DEP Form No. 62-213.900(1)) has been repealed. A separate Annual Emissions Fee form is no longer required to be submitted by March 1st each year.}

FW8. Annual Statement of Compliance. The permittee must submit an annual statement of compliance to the compliance authority at the address shown on the cover of this permit and to the US EPA at the address shown below within 60 days after the end of each calendar year during which the Title V air operation permit was effective. (See also Appendix RR, Conditions RR1 and RR7.) [Rules 62-213.440(3)(a)2. & 3. and (b), F.A.C.]

U.S. Environmental Protection Agency, Region 4
Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, Georgia 30303
Attn: Air Enforcement Branch

FW9. Prevention of Accidental Releases (Section 112(r) of CAA). If, and when, the facility becomes subject to 112(r), the permittee must:

- Submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent electronically through EPA's Central Data Exchange system at the following address: <https://cdx.epa.gov>. Information on electronically submitting risk management plans using the Central Data Exchange system is available at: <http://www2.epa.gov/rmp>. The RMP Reporting Center can be contacted at: RMP Reporting Center, Post Office Box 10162, Fairfax, VA 22038, Telephone: (703) 227-7650.
- Submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C.

SECTION II. FACILITY-WIDE CONDITIONS.

[40 CFR 68]

FW10. Semi-Annual Reports. The permittee must monitor compliance with the terms and conditions of this permit and must submit reports at least every six months to the compliance office. Each semi-annual report must cover the 6-month periods of January 1 – June 30 and July 1 – December 31. The reports must be submitted by the 60th day following the end of each calendar half (i.e., March 1st and August 29th of every year). All instances of deviations from permit requirements (including conditions in the referenced Appendices) must be clearly identified in such reports, including reference to the specific requirement and the duration of such deviation. If there are no deviations during the reporting period, the report must so indicate. Any semi-annual reporting requirements contained in applicable federal NSPS or NESHAP requirements may be submitted as part of this report. The submittal dates specified above must replace the submittal dates specified in the federal rules. All additional reports submitted as part of this report should be clearly identified according to the specific federal requirement. All reports must include a certification by a responsible official, pursuant to subsection 62-213.420(4), F.A.C. (See also Conditions RR2. – RR4. of Appendix RR, Facility-wide Reporting Requirements, for additional reporting requirements related to deviations.) [Rule 62-213.440(1)(b)3.a., F.A.C.; and, 40 CFR 60.19(d), 40 CFR 61.10(h) & 40 CFR 63.10(a)(5)]

{Permitting Note: EPA has clarified that, pursuant to 40 CFR 70.6(a)(3), the word "monitoring" is used in a broad sense and means monitoring (i.e., paying attention to) the compliance of the source with all emissions limitations, standards, and work practices specified in the permit.}

FW11. Submission of Reports. All reports must be submitted to the Department's Compliance Authority listed on the cover page of this permit. However, if a condition contained within this permit (including the incorporated appendices listed in the Table of Contents) allows or requires the electronic submission of a report directly to the EPA using their Electronic Reporting Tool (ERT), that report does not also have to be submitted to the Compliance Authority, provided the permittee complies with all of the specific requirements of that condition and notifies the Compliance Authority in writing (email) on the same day that a report has been submitted to the ERT. See Appendix TR, Facility-wide Testing Requirements, for specific emission test report submission requirements.

[Rules 62-4.130, 62-4.160, 62-213.440(1)(b) & 62-297.310(10), F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit 001

The specific conditions in this section apply to the following emissions unit:

EU No.	Brief Description
001	Municipal Solid Waste Landfill (Collection System)

The West Nassau Landfill is a closed Class I Landfill with a design capacity greater than 2.5 million megagrams by mass or 2.5 million cubic meters by volume. The landfill is comprised of closed unlined cells and closed lined cells. The unlined portion of the landfill started accepting waste in 1974 and the lined portion of the landfill started accepting waste in 1993. The landfill stopped accepting waste for disposal on October 1, 2009 and entered long-term care on March 25, 2013. The final capacity of the lined portion of the landfill is approximately 3,920,000 cubic yards (2,997,100 cubic meters), and the unlined portion of the landfill is approximately 730,000 cubic yards (562,100 cubic meters). The total permitted landfill capacity (by solid waste program) is approximately 4.65 million cubic yards (3,555,000 cubic meters).

This landfill does not contain a bioreactor and does contain asbestos waste. Landfill gas emissions are collected and controlled through an extraction well field system with one open "candlestick-type" utility flare. Currently the landfill consists of 62 NSPS Gas Extraction Wells (including 12 leachate collection system cleanout risers).

{Permitting Note: This Landfill is subject to NSPS Subpart A (General Provisions) and Subpart WWW (Standards of Performance for MSW Landfills) of 40 CFR 60 adopted by reference in Rule 62-204.800(8)(b)77, F.A.C.; NESHAP Subpart A (General Provisions) and Subpart M (National Emission Standards for Asbestos) of 40 CFR 61 adopted by reference in Rule 62.204.800(10)(b)8, F.A.C.; and NESHAP Subpart A (General Provisions) and Subpart AAAA (NESHAP for MSW Landfills) of 40 CFR 63 adopted by reference in Rule 62.204.800(11)(b)59, F.A.C. In August 2016, US EPA published a set of emissions guidelines in 40 CFR 60, Subpart Cf. These emissions guidelines impose requirements on states to develop plans to apply to existing landfills. Therefore, this landfill will likely become subject to a state or federal plan for existing landfills, reflecting the limits in Subpart Cf. This facility would likely be classified as a "closed landfill" under Subpart Cf.}

Essential Potential to Emit (PTE) Parameters

- A.1. **Design Capacity.** The landfill is a closed Class I Landfill with a design capacity greater than 2.5 million megagrams by mass or 2.5 million cubic meters by volume. The landfill must operate the existing collection and control system that captures the gas generated within the landfill in accordance with 40 CFR 60, NSPS, Subpart WWW. [40 CFR 60.752 and Rules 62-4.160(2), 62-210.200(PTE), and 62-204.800(8)(b)77, F.A.C.]
- A.2. **Hours of Operation.** Hours of operation are not restricted. However, a closure report has been submitted to the Department, no additional waste may be placed into the landfill without filing a notification of modification. [Rule 62-210.200(PTE), F.A.C.]

Control Technology

A.3. **Landfill Gas Collection and Control System.**

- a. The permittee must operate the existing collection and control system that captures the gas generated within the landfill.
 - (1) An active collection system must:
 - (a) Be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control or treatment system equipment;

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit 001

- (b) Collect gas from each area, cell, or group of cells in the landfill in which the initial solid waste has been placed for a period of:
- 5 years or more if active; or
 - 2 years or more if closed or at final grade.
- (c) Collect gas at a sufficient extraction rate;
- (d) Be designed to minimize off-site migration of subsurface gas.
- b. Route all the collected gas to a control system that complies with the following requirements:
- An open flare designed and operated in accordance with 40 CFR 60.18 except as noted in **Specific Condition B.15. below**;
 - A control system designed and operated to reduce NMOC by 98 weight-percent (%), or, when an enclosed combustion device is used for control, to either reduce NMOC by 98 weight-% or reduce the outlet NMOC concentration to less than 20 parts per million by volume, dry (ppmvd) basis as hexane at 3% oxygen (O₂) using the test methods specified in 40 CFR 60.754(d).
 - The control device must be operated within the parameter ranges established during the most recent performance test. The operating parameters to be monitored are specified in **Condition Specific Condition A.19. below**.
 - Route the collected gas to a treatment system that processes the collected gas for subsequent sale or use. All emissions from any atmospheric vent from the gas treatment system must be subject to the requirements of paragraph **Specific Condition A.3.b(1) and (2) above**.
- c. Operate the collection and control device installed in accordance with the provisions of **Specific Conditions A.5., A.8., and A.19. below**.
- [40 CFR 60.752; and Rule 62-204.800(8)(b)77, F.A.C.]

Operation ProceduresA.4. Active Collection Systems Specifications.

- a. The permittee seeking to comply with submitting collection and control system design plan (**Specific Condition A.23. c. below**) must site active collection wells, horizontal collectors, surface collectors, or other extraction devices at a sufficient density throughout all gas producing areas using the following procedures unless alternative procedures have been approved by the Department as provided in 40 CFR 60.752(b)(2)(i)(C) and (D):
- The collection devices within the interior and along the perimeter areas must be certified to achieve comprehensive control of surface gas emissions by a professional engineer. The following issues must be addressed in the design: depths of refuse, refuse gas generation rates and flow characteristics, cover properties, gas system expandability, leachate and condensate management, accessibility, compatibility with filling operations, integration with closure end use, air intrusion control, corrosion resistance, fill settlement, and resistance to the refuse decomposition heat.
 - The sufficient density of gas collection devices determined in **Specific Condition A.4.a(1) above** must address landfill gas migration issues and augmentation of the collection system through the use of active or passive systems at the landfill perimeter or exterior.
 - The placement of gas collection devices determined in **Specific Condition A.4.a(1) above** must control all gas producing areas, except as provided by in **Specific Condition A.4.a(3)(a) and (b) below**.

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit 001

- (a) Any segregated area of asbestos or non-degradable material may be excluded from collection if documented as provided in **Specific Condition A.31. c. below**. The documentation must provide the nature, date of deposition, location and amount of asbestos or non-degradable material deposited in the area and must be provided to the Department upon request.
- (b) Any nonproductive area of the landfill may be excluded from control, provided that the total of all excluded areas can be shown to contribute less than 1% of the total amount of NMOC emissions from the landfill. The amount, location, and age of the material must be documented and provided to the Department upon request. A separate NMOC emissions estimate must be made for each section proposed for exclusion, and the sum of all such sections must be compared to the NMOC emissions estimate for the entire landfill. Emissions from each section must be computed using the following equation:

$$Q_i = 2 k L_O M_i (e^{-kt_i}) (C_{NMOC}) (3.6 \times 10^{-9})$$

where,

- Q_i = NMOC emission rate from the ith section, Mg/year
 K = methane generation rate constant, year⁻¹
 L_O = methane generation potential, cubic meters per megagram (M³/Mg) solid waste
 M_i = mass of the degradable solid waste in the ith section, Mg
 t_i = age of the solid waste in the ith section, years
 C_{NMOC} = concentration of NMOC, ppmv
 3.6 × 10⁻⁹ = conversion factor

- (c) The values for k and C_{NMOC} determined in field testing must be used if field testing has been performed in determining the NMOC emission rate or the radii of influence (this distance from the well center to a point in the landfill where the pressure gradient applied by the blower or compressor approaches zero). If field testing has not been performed, the default values for k, L_O and C_{NMOC} provided in **Specific Condition A.23. below** or the alternative values from 40 CFR 60.754(a)(5) must be used. The mass of non-degradable solid waste contained within the given section may be subtracted from the total mass of the section when estimating emissions provided the nature, location, age, and amount of the non-degradable material is documented as provided in **Specific Condition A.4. a. (3)(a) above**.

{Permitting Note: Pursuant to Specific Condition A.4. a. (3)(b) above, the West Nassau Landfill has met the requirements of this regulation for Well Nos. GW-41 and GW-45. The Permittee must continue to monitor Well No. GW-48 for a future determination pursuant to this regulation.}

- b. The permittee seeking to comply with Collection and Control System design requirements (**Specific Condition A.3. above**) must construct the gas collection devices using the following equipment or procedures:
- The landfill gas extraction components must be constructed of polyvinyl chloride (PVC), high density polyethylene (HDPE) pipe, fiberglass, stainless steel, or other nonporous corrosion resistant material of suitable dimensions to: convey projected amounts of gases; withstand installation, static, and settlement forces; and withstand planned overburden or traffic loads. The collection system must extend as necessary to comply with emission and migration standards. Collection devices such as wells and horizontal collectors must be perforated to allow gas entry without head loss sufficient to impair performance across the intended extent of control. Perforations must be situated regarding the need to prevent excessive air infiltration.
 - Vertical wells must be placed so as not to endanger underlying liners and must address the occurrence of water within the landfill. Holes and trenches constructed for piped wells and

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit 001

horizontal collectors must be of sufficient cross-section so as to allow for their proper construction and completion including, for example, centering of pipes and placement of gravel backfill.

Collection devices must be designed so as not to allow indirect short circuiting of air into the cover or refuse into the collection system or gas into the air. Any gravel used around pipe perforations should be of a dimension so as not to penetrate or block perforations.

- (3) Collection devices may be connected to the collection header pipes below or above the landfill surface. The connector assembly must include a positive closing throttle valve, any necessary seals and couplings, access couplings and at least one sampling port. The collection devices must be constructed of PVC, HDPE, fiberglass, stainless steel, or other nonporous material of suitable thickness.
- c. Each permittee seeking to comply with Collection and Control System design requirements (Specific Condition A.3. above) must convey the landfill gas to a control system in compliance with routing the collected gas to the control system (Specific Condition A.3. b. above) through the collection header pipes. The gas mover equipment must be sized to handle the maximum gas generation flow rate expected over the intended use period of the gas moving equipment using the following procedures:
- (1) For existing collection systems, the flow data must be used to project the maximum flow rate. If no flow data exists, the procedures in Specific Condition A.4. c. (2) below must be used.
 - (2) For new collection systems, the maximum flow rate must be in accordance with Specific Condition A.8 below).

{Permitting Note: Gas extraction wells and leachate cleanout risers, that have undergone formal review by the Department and determined as low producing gas extraction wells, may also be subject to the requirements in Appendix AS - Alternative Standards for Low Gas Production Extraction Wells and Leachate Cleanout Riser Connections.}

[40 CFR 60.759; and Rule 62-204.800(8)(b)77, F.A.C.]

- A.5. **Operation Standards.** The permittee of an of an MSW landfill with a gas collection and control system used to comply with the captured gas generated within the landfill (Specific Condition A.3. above) must:
- a. **Collection and Control System.** Operate the collection system such that gas is collected from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for:
 - (1) 5 years or more if active; or
 - (2) 2 years or more if closed or at final grade.
 - b. **Well Head Operation – Pressure.** Operate the collection system with negative pressure at each wellhead except under the following conditions:
 - (1) A fire or increased well temperature. The permittee must record instances when positive pressure occurs in efforts to avoid a fire. These records must be submitted with the annual reports as provided in Specific Condition A.29. a. below.
 - (2) Use of a geomembrane or synthetic cover. The permittee must develop acceptable pressure limits in the design plan.
 - (3) A decommissioned well. A well may experience a static positive pressure after shutting down to accommodate for declining flows. All design changes must be approved by the Department.

{Permitting Note: The landfill has been closed and is covered with a geomembrane cover. The well head may operate pressures of up to 1.0 psi. In addition, the Department authorized an alternate sampling

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit 001

procedure allowing the O₂ concentrations up to 21% in the leachate collection cleanout riser system (LCR0001 through LCR0012) as identified in Appendix ASP.}

- c. **Well Head Operation – Temperature, Nitrogen or O₂ Level.** Operate each interior wellhead in the collection system with a landfill gas temperature less than 55 degrees Celsius (°C) and with either a nitrogen level less than 20% or an O₂ level less than 5%. The permittee may establish a higher operating temperature, nitrogen, or O₂ value at a particular well. A higher operating value demonstration must show supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens.
- (1) The nitrogen level must be determined using Method 3C, unless an alternative test method is established as allowed by 40 CFR 60.752(b)(2)(i) of NSPS Subpart WWW.
 - (2) Unless an alternative test method is established as allowed by 40 CFR 60.752(b)(2)(i) of NSPS Subpart WWW, the O₂ must be determined by an O₂ meter using Method 3A or 3C except that:
 - (a) The span must be set so that the regulatory limit is between 20% – 50% of the span;
 - (b) A data recorder is not required;
 - (c) Only two calibration gases are required, a zero and span, and ambient air may be used as the span;
 - (d) A calibration error check is not required;
 - (e) The allowable sample bias, zero drift, and calibration drift are ±10%.
- d. **Surface Methane Concentration.** Operate the collection system so that the methane concentration is less than 500 ppm above background at the surface of the landfill. To determine if this level is exceeded, the permittee must conduct surface testing around the perimeter of the collection area and along a pattern that traverses the landfill at 30-meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover. The permittee may establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan must be developed that includes a topographical map with the monitoring route and the rationale for any site-specific deviations from the 30-meter intervals. Areas with steep slopes or other dangerous areas may be excluded from the surface testing.
- e. **Landfill Gas Collection System – Operable/Inoperable.** Operate the system such that all collected gases are vented to a control system designed and operated in compliance with Specific Condition A.3. b. above. In the event the collection or control system is inoperable, the gas mover system must be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere must be closed within 1 hour; and
- f. Always operate the control or treatment system when the collected gas is routed to the system.
- g. **Landfill Gas Collection System – Corrective Action.** If monitoring demonstrates that the operational requirements in Specific Conditions A.5.b, c, or d above are not met, corrective action must be taken as specified in Specific Conditions A.10. through A.12. below or Specific Condition A.13. below. If corrective actions are taken as specified in 40 CFR 60.755, the monitored exceedance is not a violation of the operational requirements in 40 CFR 60.753.

{Permitting Note: Landfill gas extraction wells with approval for higher operating parameter values are stated in Appendix AO of this Title V air operation permit.}

[40 CFR 60.753; and Rule 62-204.800(8)(b)77, F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit 001

A.6. Asbestos Disposal. The permittee of any inactive waste disposal site must comply with the following requirements:

- a. Comply with one of the following:
 - (1) Either discharge no visible emissions to the outside air from an inactive waste disposal site subject to this paragraph; or
 - (2) Cover the asbestos-containing waste material with at least 15 centimeters (cm) (6") of compacted nonasbestos-containing material and grow and maintain a cover of vegetation on the area adequate to prevent exposure of the asbestos-containing waste material. In desert areas where vegetation would be difficult to maintain, at least 8 additional centimeters (3") of well-graded, nonasbestos crushed rock may be placed on top of the final cover instead of vegetation and maintained to prevent emissions; or
 - (3) Cover the asbestos-containing waste material with at least 60 cm (2 feet) of compacted nonasbestos-containing material, and maintain it to prevent exposure of the asbestos-containing waste; or
 - (4) For inactive waste disposal sites for asbestos tailings, a resinous or petroleum-based dust suppression agent that effectively binds dust to control surface air emissions may be used instead of the methods in paragraphs a (1) - (3) of this section. Use the agent in the manner and frequency recommended for the asbestos tailings by the manufacturer of the dust suppression agent to achieve and maintain dust control. Obtain prior written approval of the Compliance Authority to use other equally effective dust suppression agents. For purposes of this paragraph, any used, spent, or other waste oil is not considered a dust suppression agent.
- b. Unless a natural barrier adequately deters access by the public, install and maintain warning signs and fencing as follows, or comply with **Specific Condition A.6.a(2) or a(3) above**.
 - (1) Display warning signs at all entrances and at intervals of 100 meters (m) (328 feet) or less along the property line of the site or along the perimeter of the sections of the site where asbestos-containing waste material was deposited. The warning signs must:
 - (a) Be posted in such a manner and location that a person can easily read the legend; and
 - (b) Conform to the requirements for 51 cm×36 cm (20"×14") upright format signs specified as below and this paragraph; and
 - i. *Caution signs*. The standard color of the background must be yellow;
 - ii. The panel, black with yellow letters.
 - iii. Any letters used against the yellow background must be black.
 - iv. The colors must be those of opaque glossy samples as specified in Table 1 of ANSI Z53.1-1967 or in Table 1 of ANSI Z53.1-2006(R2011), incorporated by reference in 29 CFR 1910.6.

[29 CFR 1910.145(d)(4)]

Legend	Notation
Asbestos Waste Disposal Site	2.5 cm (1 inch) Sans Serif, Gothic or Block
Do Not Create Dust	1.9 cm (3/4 inch) Sans Serif, Gothic or Block
Breathing Asbestos is Hazardous to Your Health	14 Point Gothic.

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit 001

- Spacing between any two lines must be at least equal to the height of the upper of the two lines.
 - (2) Fence the perimeter of the site in a manner adequate to deter access by the public.
 - (3) When requesting a determination on whether a natural barrier adequately deters public access, supply information enabling the Compliance Authority to determine whether a fence or a natural barrier adequately deters access by the public.
 - c. Cover the asbestos-containing waste material with at least 15 cm (6") of compacted nonasbestos-containing material and grow and maintain a cover of vegetation on the area adequate to prevent exposure of the asbestos-containing waste material. In desert areas where vegetation would be difficult to maintain, at least 8 additional centimeters (3") of well-graded, nonasbestos crushed rock may be placed on top of the final cover instead of vegetation and maintained to prevent emissions; or
 - d. Cover the asbestos-containing waste material with at least 60 cm (2 feet) of compacted nonasbestos-containing material and maintain it to prevent exposure of the asbestos-containing waste.
 - e. The permittee may use an alternative control method that has received prior approval of the Department rather than comply with the requirements of **Specific Conditions A.6.a and b above**.
- [40 CFR 61.151(a) – (d); and Rule 62.204.800(10)(b)8, F.A.C.]

Compliance Provisions

A.7. Requirements of 40 CFR 63, Subpart AAAA.

- a. The permittee must comply with the requirement of 40 CFR 60, Subpart WWW.
- b. The permittee is required by **Specific Condition A.23. c. below** of 40 CFR 60, Subpart WWW, the Federal plan, or an EPA approved and effective State or tribal plan to install a collection and control system and must comply with the requirements in 40 CFR 63.1960 through 40 CFR 63.1985 and with the general provisions of 40 CFR 63 specified in Table 1 of NESHAP Subpart AAAA.
- c. *Collection and Control System Alternatives*. For approval of collection and control systems that include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions, you must follow the procedures in **Specific Condition A.23. below**. If alternatives have already been approved under 40 CFR part 60 Subpart WWW or the Federal plan, or EPA approved and effective State or tribal plan, these alternatives can be used to comply with this subpart, except that all affected sources must comply with the SSM requirements in Subpart A of 40 CFR 63 as specified in Table 1 of NESHAP Subpart AAAA and all affected sources must submit compliance reports every 6 months as specified in **Specific Condition A.32. below**, including information on all deviations that occurred during the 6-month reporting period. Deviations for continuous emission monitors or numerical continuous parameter monitors must be determined using a 3-hour monitoring block average.

[40 CFR 63.1955; and Rule 62-204.800(11)(b)59, F.A.C.]

A.8. Gas Collection System. Except as provided in the collection and control system design plan for alternatives in the operational procedures provided in 40 CFR 60.752(b)(2)(i)(B)), the specified methods in **Specific Condition A.8. - A.12. below** must be used to determine whether the gas collection system is in compliance with 40 CFR 60.752(b)(2)(ii).

- a. For the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine compliance with **Specific Condition A.3. above**, one of the following equations must be used. The k and L₀ kinetic factors should be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42) or other site-specific values demonstrated to be appropriate and

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approved by the Department. If k has been determined as specified in 40 CFR 60.754(a)(4), the value of k determined from the test must be used. A value of no more than 15 years must be used for the intended use period of the gas mover equipment. The active life of the landfill is the age of the landfill plus the estimated number of years until closure.

- (1) For sites with unknown year-to-year solid waste acceptance rate:

$$Q_M = 2L_0 R (e^{-kc} - e^{-kt})$$

where,

- Q_M = maximum expected gas generation flow rate, cm^3/year
 L_0 = methane generation potential, cm^3/Mg solid waste
 R = average annual acceptance rate, Mg/year
 k = methane generation rate constant, year^{-1}
 t = (age of the landfill at equipment installation) + (the time the permittee intends to use the gas mover equipment) or active life of the landfill, whichever is less. If the equipment is installed after closure, t is the age of the landfill at installation, years
 c = time since closure, years (for an active landfill $c = 0$ and $e^{-kc} = 1$)

- (2) For sites with known year-to-year solid waste acceptance rate:

$$Q_M = \sum_{i=1}^n 2kL_0 M_i (e^{-kt_i})$$

where,

- Q_M = maximum expected gas generation flow rate, cm^3/year
 k = methane generation rate constant, year^{-1}
 L_0 = methane generation potential, cm^3/Mg solid waste
 M_i = mass of solid waste in the i^{th} section, Mg
 t_i = age of the i^{th} section,

- (3) If a collection and control system has been installed, actual flow data may be used to project the maximum expected gas generation flow rate instead of, or in conjunction with, the equations in **Specific Conditions A.8.a(1) and (2) above**.

[40 CFR 60.755(a)(1); and Rule 62-204.800(8)(b)77, F.A.C.]

- A.9. **Gas Collectors – Density.** For the purposes of determining sufficient density of gas collectors for compliance with **Specific Condition A.3. above**, the permittee must design a system of vertical wells, horizontal collectors, or other collection devices, satisfactory to the Compliance Authority, capable of controlling and extracting gas from all portions of the landfill sufficient to meet all operational and performance standards.

[40 CFR 60.755(a)(2); and Rule 62-204.800(8)(b)77, F.A.C.]

- A.10. **Gas Collection System – Flow Rate.** For demonstrating whether the gas collection system flow rate is sufficient to determine compliance with **Specific Condition A.3. a. (1) (c) above**, the permittee must measure gauge pressure in the gas collection header at each individual well, monthly. If a positive pressure exists, action must be initiated to correct the exceedance within 5 calendar days, except for the three conditions allowed under **Condition A.5. b. above**. If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement, the gas collection system must be expanded to correct the exceedance within 120 days of the initial measurement of positive pressure. Any attempted

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corrective measure must not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the Compliance Authority for approval. The permittee is not required to expand the system during the first 180 days after gas collection system startup.

(Permitting Note: As allowed under Specific Condition A.5. b. (2) above, the Compliance Authority authorized the well head operating pressures of up to 1.0 psi since the landfill was capped with a geomembrane cover and it has been demonstrated that well head operations at 1.0 psi or less will not affect the designed final cover system.)

[40 CFR 60.755(a)(3)(4); and Rule 62-204.800(8)(b)77, F.A.C.]

- A.11. **Excess Air Infiltration.** For identifying whether excess air infiltration into the landfill is occurring, the permittee must monitor each well monthly for temperature and nitrogen or O_2 as provided in 40 CFR 60.753(c). If a well exceeds one of these operating parameters, action must be initiated to correct the exceedance within 5 calendar days. If correction of the exceedance cannot be achieved within 15 calendar days of the first measurement, the gas collection system must be expanded to correct the exceedance within 120 days of the initial exceedance. Any attempted corrective measure must not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the Department for approval.

[40 CFR 60.755(a)(5); and Rule 62-204.800(8)(b)77, F.A.C.]

- A.12. **Alternative Off-Site Migration.** The permittee seeking to demonstrate compliance with being designed to minimize off-site migration of subsurface gas 40 CFR 60.752(b)(2)(ii)(A)(4) using a collection system not conforming to the specifications for an active collection system **Specific Condition A.4. above** must provide information satisfactory to the Compliance Authority as specified in 40 CFR 60.752(b)(2)(i)(C) demonstrating that off-site migration is being controlled.

[40 CFR 60.755(a)(6); and Rule 62-204.800(8)(b)77, F.A.C.]

- A.13. **Surface Methane Monitoring.** The following procedures must be used for compliance with the surface methane operation standard as provided in 40 CFR 60.753(d).

- After installation of the collection system, the permittee must monitor surface concentrations of methane along the entire perimeter of the collection area and along a pattern that traverses the landfill at 30-meter intervals (or a site-specific established spacing) for each collection area on a quarterly basis using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in **Specific Condition A.14. below**.
- The background concentration must be determined by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least 30-meters from the perimeter wells.
- Surface emission monitoring must be performed in accordance with Section 4.3.1 of Method 21 of Appendix A of 40 CFR 60, except that the probe inlet must be placed within 5 to 10 cm of the ground. Monitoring must be performed during typical meteorological conditions.
- Any reading of 500 ppm or more above background at any location must be recorded as a monitored exceedance and the actions specified in **Specific Conditions A.13.d(1) through (5) below** must be taken. If the specified actions are taken, the exceedance is not a violation of the operational requirements of **Specific Condition A.5. d. above**.
 - The location of each monitored exceedance must be marked, and the location recorded.
 - Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection near each exceedance must be made and the location must be re-monitored within 10 calendar days of detecting the exceedance.

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- (3) If the re-monitoring of the location shows a second exceedance, additional corrective action must be taken, and the location must be monitored again within 10 days of the second exceedance. If the re-monitoring shows a third exceedance for the same location, the action specified in **Specific Condition A.13.d(5) below** must be taken, and no further monitoring of that location is required until the action specified in **Specific Condition A.13.d(5) below** has been taken.
- (4) Any location that initially showed an exceedance but has a methane concentration less than 500 ppm methane above background at the 10-day re-monitoring specified in **Specific Conditions A.13.d(2) through (3) above** must be re-monitored 1 month from the initial exceedance. If the 1-month re-monitoring shows a concentration less than 500 ppm above background, no further monitoring of that location is required until the next quarterly monitoring period. If the 1-month re-monitoring shows an exceedance, the actions specified in **Specific Conditions A.13.d(3) above or (5) below** must be taken.
- (5) For any location where monitored methane concentration equals or exceeds 500 ppm above background three times within a quarterly period, a new well or other collection device must be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation may be submitted to the Compliance Authority for approval.
- e. The permittee must implement a program to monitor for cover integrity and implement cover repairs as necessary monthly.
[40 CFR 60.755(e); and Rule 62-204.800(8)(b)77, F.A.C.]
- A.14. Surface Methane Concentration Monitoring.** The permittee seeking to comply with the provisions in **Specific Condition A.13. above** must comply with the following instrumentation specifications and procedures for surface emission monitoring devices:
- The portable analyzer must meet the instrument specifications provided in Section 3 of Method 21 of Appendix A of 40 CFR 60, except that "methane" must replace all references to VOC.
 - The calibration gas must be methane, diluted to a nominal concentration of 500 ppm in air.
 - To meet the performance evaluation requirements in section 3.1.3 of Method 21 of Appendix A of 40 CFR 60, the instrument evaluation procedures of Section 4.4 of Method 21 of Appendix A of 40 CFR 60 must be used.
 - The calibration procedures provided in Section 4.2 of Method 21 of Appendix A of 40 CFR 60 must be followed immediately before commencing a surface monitoring survey.
[40 CFR 60.755(d); and Rule 62-204.800(8)(b)77, F.A.C.]
- A.15. Startup – Shutdown – Malfunction (SSM).** The provisions of this subpart always apply, except during periods of SSM, provided that the duration of SSM must not exceed 5 days for collection systems and must not exceed 1 hour of free venting for treatment or control devices.
[40 CFR 60.755(e); and Rule 62-204.800(8)(b)77, F.A.C.]
- A.16. Compliance Determination.** Compliance is determined in the same way it is determined for 40 CFR 60, Subpart WWW, including performance testing, monitoring of the collection system, continuous parameter monitoring, and other credible evidence. In addition, continuous parameter monitoring data, collected under 40 CFR 60.756(b)(1), (c)(1), and (d) of Subpart WWW, are used to demonstrate compliance with the operating conditions for control systems. If a deviation occurs, the facility has failed to meet the control device operating conditions described in this subpart and has deviated from the requirements of this subpart.

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Finally, the permittee must develop a written SSM plan according to the provisions in 40 CFR 63.6(e)(3). A copy of the SSM plan must be maintained on site. Failure to write, implement or maintain a copy of the SSM plan is a deviation from the requirements of NESHAP 40 CFR 63 Subpart AAAA.

{Permitting Note: An SSM Plan has been developed and implemented.}

[40 CFR 63.1960; and Rule 62-204.800(11)(b)59, F.A.C.]

- A.17. Deviation Determination.** A deviation is defined in 40 CFR 63.1990. For the purposes of the landfill monitoring and SSM plan requirements, deviations include the items in **Specific Conditions A.17.a through c below**.
- A deviation occurs when the control device operating parameter boundaries described in 40 CFR 60.758(c)(1) of Subpart WWW are exceeded.
 - A deviation occurs when 1-hour or more of the hours during the 3-hour block averaging period does not constitute a valid hour of data. A valid hour of data must have measured values for at least three 15-minute monitoring periods within the hour.
 - A deviation occurs when an SSM plan is not developed or maintained on site.
[40 CFR 63.1965; and Rule 62-204.800(11)(b)59, F.A.C.]
- A.18. 3-Hour Block Average Determination.** Averages are calculated in the same way as they are calculated in 40 CFR 60 Subpart WWW, except that the data collected during the following events are not to be included in any average computed under 40 CFR 63 Subpart AAAA:
- Monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments.
 - Startup, shutdown, and malfunction.
[40 CFR 63.1975; and Rule 62-204.800(11)(b)59, F.A.C.]

Monitoring of Operations

- A.19. Gas Collection System Monitoring Requirements.** The permittee seeking to comply with **Specific Condition A.5. above** for an active gas collection system must install a sampling port and a thermometer, other temperature measuring device, or an access port for temperature measurements at each wellhead and:
- Measure the gauge pressure in the gas collection header monthly as provided in **Specific Condition A.10. above**; and
 - Monitor nitrogen or oxygen concentration in the landfill gas monthly as provided in **Specific Condition A.11. above**; and
 - Monitor temperature of the landfill gas monthly as provided in **Specific Condition A.11. above**.
[40 CFR 60.756(a); and Rule 62-204.800(8)(b)77, F.A.C.]
- A.20. Alternative System Monitoring Requirements.** The permittee seeking to install a collection system that does not meet the specifications for an active collection system (**Specific Condition A.4. above**) or seeking to monitor alternative parameters to the operational standards for collection and control systems, test methods and procedures, compliance provisions, and monitoring of operations (**Specific Conditions A.5. through Condition A.19. above**) must provide information satisfactory to the Compliance Authority as provided in 40 CFR 60.752(b)(2)(i) (B) and (C) describing the design and operation of the collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Compliance Authority may specify additional appropriate monitoring procedures.
[40 CFR 60.756(e); and Rule 62-204.800(8)(b)77, F.A.C.]

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Test Methods and Procedures

{Permitting Note: The attached Table 2, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

A.21. Test Methods. When required, tests must be performed in accordance with the following reference methods:

Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
18	Measurement of Gaseous Organic Compound Emissions by Gas Chromatography
21	Fugitive Methane Leaks
25C	Determination of NMOC in MSW landfill gases

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department.

[Rule 62-297.401, F.A.C.]

A.22. Common Testing Requirements. Unless otherwise specified, tests must be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit.

[Rule 62-297.310, F.A.C.]

A.23. NMOC Calculations. Each permittee of an MSW landfill having a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters, must calculate an NMOC emission rate for the landfill using the following equation Specific Condition A.23.a below. The NMOC emission rate must be recalculated annually, except as provided in Specific Condition A.24. below. The permittee of an MSW landfill subject to this subpart with a design capacity greater than or equal to 2.5 million megagrams and 2.5 million cubic meters is subject to part 70 or 71 permitting requirements. If the calculated NMOC emission rate is less than 50 MG/year, the permittee must:

- a. The landfill permittee must calculate the NMOC emission rate using either Equation No. 1 or Equation No. 2. Both equations may be used if the actual year-to-year solid waste acceptance rate is known, as specified in Equation No. 1, for part of the life of the landfill and the actual year-to-year solid waste acceptance rate is unknown, as specified in Equation No. 2, for part of the life of the landfill. The values to be used in this equation is 0.05 per year for k, 170 cm/Mg for L₀, and 4,000 ppmv as hexane for the C_{NMOC}. For landfills located in geographical areas with a 30-year annual average precipitation of less than 25", as measured at the nearest representative official meteorological site, the k value to be used is 0.02 per year.

Equation No. 1. The following equation must be used if the actual year-to-year solid waste acceptance rate is known.

$$M_{NMOC} = \sum_{i=1}^n 2kL_0M_i(e^{-kt_i})(C_{NMOC})(3.6 \times 10^{-9})$$

Where,

- M_{NMOC} = Total NMOC emission rate from the landfill, Mg/year
- K = methane generation rate constant, year⁻¹
- L₀ = methane generation potential, cm/Mg solid waste
- M_i = mass of solid waste in the ith section, megagrams

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- t_i = age of the ith section, years
- C_{NMOC} = concentration of NMOC, ppmv as hexane
- 3.6 × 10⁻⁹ = conversion factor

The mass of nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating the value for M, if documentation of the nature and amount of such wastes is maintained.

Equation No. 2. The following equation must be used if the actual year-to-year solid waste acceptance rate is unknown.

$$M_{NMOC} = 2L_0R(e^{-kc} - e^{-kt})C_{NMOC}(3.6 \times 10^{-9})$$

Where,

- M_{NMOC} = mass emission rate of NMOC, megagrams per year
- L₀ = methane generation potential, cubic meters per megagram solid waste
- R = average annual acceptance rate, megagrams per year
- k = methane generation rate constant, year⁻¹
- t = age of landfill, years
- C_{NMOC} = concentration of NMOC, parts per million by volume as hexane
- c = time since closure, years; for active landfill c=0 and e^{-kc}
- 3.6 × 10⁻⁹ = conversion factor

The mass of nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating the value of R, if documentation of the nature and amount of such wastes is maintained.

- b. Submit an annual emission report to the Department, except as provided Condition A.24 below; and
- c. Recalculate the NMOC emission rate annually using the equation in Condition A.25. a. below until the calculated NMOC emission rate is equal to or greater than 50 Mg/year, or the landfill is closed.

{Permitting Note: Tier II testing was conducted in May and June 2004, which resulted in NMOC concentration of 590.4 ppmv.}

[40 CFR 60.752(b), 40 CFR 60.754(a)(1)(i); and Rule 62-204.800(8)(b)77, F.A.C.]

A.24. NMOC Annual Report. If the estimated NMOC emission rate as reported in the annual report is less than 50 Mg/year in each of the next 5 consecutive years, the permittee may elect to submit an estimate of the NMOC emission rate for the next 5-year period in lieu of the annual report. This estimate must include the current amount of solid waste-in-place and the estimated waste acceptance rate for each year of the 5 years for which an NMOC emission rate is estimated. All data and calculations upon which this estimate is based must be provided to the Compliance Authority. This estimate must be revised at least once every 5 years. If the actual waste acceptance rate exceeds the estimated waste acceptance rate in any year reported in the 5-year estimate, a revised 5-year estimate must be submitted to the Compliance Authority. The revised estimate must cover the 5-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate.

[40 CFR 60.757(b)(ii); and Rule 62-204.800(8)(b)77, F.A.C.]

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A.25. Collection and Control System Removal Determination. After the installation of a collection and control system in compliance with **Specific Condition A.23. above**, the permittee must calculate the NMOC emission rate for purposes of determining when the system can be removed as provided in **Specific Condition A.34. below**, using the following equation:

$$M_{NMOC} = 1.89 \times 10^{-3} Q_{LFG} C_{NMOC}$$

where,

- M_{NMOC} = mass emission rate of NMOC, Mg/year
- Q_{LFG} = flow rate of landfill gas (LFG), cm³/minute
- C_{NMOC} = NMOC concentration, ppmv as hexane

- a. The flow rate of landfill gas, Q_{LFG} , must be determined by measuring the total landfill gas flow rate at the common header pipe that leads to the control device using a gas flow measuring device calibrated according to the provisions of Section 4 of Method 2E of Appendix A of 40 CFR 60.
- b. The average NMOC concentration, C_{NMOC} , must be determined by collecting and analyzing landfill gas sampled from the common header pipe before the gas moving or condensate removal equipment using the procedures in Method 25C or Method 18 of Appendix A of 40 CFR 60. If using Method 18 of Appendix A of 40 CFR 60, the minimum list of compounds to be tested must be those published in the most recent AP-42. The sample location on the common header pipe must be before any condensate removal or other gas refining units. The permittee must divide the NMOC concentration from Method 25C of Appendix A of 40 CFR 60 by six to convert from C_{NMOC} as carbon to C_{NMOC} as hexane.
- c. The permittee may use another method to determine landfill gas flow rate and NMOC concentration if the method has been approved by the Compliance Authority.

[40 CFR 60.754(b); and Rule 62-204.800(8)(b)77, F.A.C.]

A.26. Reporting Schedule. The following reports and notifications must be submitted to the Compliance Authority:

Report	Reporting Deadline	Related Conditions
Equipment Removal Report	30 days prior to removal or cessation of operation	A.28
Collection and Control System Reports	Initially and every 6 months thereafter	A.29

[Rule 62-213.440(1)(b), F.A.C.]

A.27. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

[Rule 62-213.440(1)(b), F.A.C.]

A.28. Equipment Removal Report. The permittee of a controlled landfill must submit an equipment removal report to the Department 30 days prior to removal or cessation of operation of the control equipment.

- a. The equipment removal report must contain all the following items:
 - (1) A copy of the closure report submitted in accordance with **Specific Condition A.36. below**;
 - (2) A copy of the initial performance test report demonstrating that the 15-year minimum control period has expired; and

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- (3) Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 50 Mg or greater of NMOC/year.
- b. The Department may request such additional information as may be necessary to verify that all the conditions for removal in **Specific Condition A.34. below** have been met.

A.29. Collection and Control System Reports. The permittee seeking to comply with 40 CFR 60.752(b)(2) using an active collection system designed in accordance with 40 CFR 60.752(b)(2)(ii) must submit to the Compliance Authority semi-annual reports of the following recorded information. For enclosed combustion devices and flares, reportable exceedances are defined under **Specific Condition A.31. below**.

- a. Value and length of time for exceedance of applicable parameters monitored under **Specific Condition A.19. above**.
- b. Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow as specified under **Specific Condition A.19. above**.
- c. Description and duration of all periods when the control device was not operating for a period exceeding 1 hour and length of time the control device was not operating.
- d. All periods when the collection system was not operating more than 5 days.
- e. The location of each exceedance of the 500-ppm methane concentration as provided in **Specific Condition A.5. d. above** and the concentration recorded at each location for which an exceedance was recorded in the previous month.
- f. The date of installation and the location of each well or collection system expansion added pursuant to **Specific Conditions A.4. a. (3), A.5. a., and A.13. d. above**.

[40 CFR 60.757(f); and, 40 CFR 63.1980(a); and Rule 62-204.800(8)(b)77 and (11)(b)59, F.A.C.]

A.30. Excavating Asbestos Containing Material. Notify the Compliance Authority in writing at least 45 days prior to excavating or otherwise disturbing any asbestos-containing waste material that has been deposited at a waste disposal site under this section, and follow the procedures specified in the notification. If the excavation will begin on a date other than the one contained in the original notice, notice of the new start date must be provided to the Compliance Authority at least 10 working days before excavation begins and in no event must excavation begin earlier than the date specified in the original notification. Include the following information in the notice:

- a. Scheduled starting and completion dates.
- b. Reason for disturbing the waste.
- c. Procedures to be used to control emissions during the excavation, storage, transport, and ultimate disposal of the excavated asbestos-containing waste material. If deemed necessary, the Department may require changes in the emission control procedures to be used.
- d. Location of any temporary storage site and the final disposal site.

[40 CFR 61.151(d); and Rule 62-204.800(10)(b)8, F.A.C.]

A.31. Landfill Records.

- a. Except as provided in 40 CFR 60.752(b)(2)(i)(B), each permittee of an MSW landfill subject to the provisions of 40 CFR 60.752(b) must keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report which triggered 40 CFR 60.752(b), the current amount of solid

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waste in-place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.

- b. **Control Equipment Records.** Except as provided in 40 CFR 60.752(b)(2)(i)(B), each permittee of a controlled landfill must keep up-to-date, readily accessible records for the life of the control equipment of the following data as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring must be maintained for a minimum of 5 years. Records of the control device vendor specifications must be maintained until removal.
- (1) Where a permittee subject to the provisions of this subpart seeks to demonstrate compliance with 40 CFR 60.752(b)(2)(i):
 - (a) The maximum expected gas generation flow rate as calculated in **Specific Condition A.23. a. above**. The permittee may use another method to determine the maximum gas generation flow rate, if the method has been approved by the Department.
 - (b) The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in **Specific Condition A.4. a. (1) above**.
- c. **Collection System Records.** Except as provided in 40 CFR 60.752(b)(2)(i)(B), each permittee subject to the provisions of NSPS Subpart WWW must keep for the life of the collection system an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector.
- (1) Each permittee subject to the provisions of this subpart must keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under **Specific Condition A.5. above**.
 - (2) Each permittee subject to the provisions of this subpart must keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or non-degradable waste excluded from collection as provided in **Specific Condition A.4. a. (3) (a) above** as well as any nonproductive areas excluded from collection as provided in **Specific Condition A.4. b. above**.

[40 CFR 60.758(a), (b)(1), and (d); and Rule 62-204.800(8)(b)77, F.A.C.]

A.32. 40 CFR Part 63, Subpart AAAA Records.

- a. Keep records and reports as specified in 40 CFR 60, Subpart WWW, or in the Federal plan, EPA approved State plan or tribal plan that implements 40 CFR 60, Subpart Cc, whichever applies to your landfill, with one exception: You must submit the annual report described in **Specific Condition A.29. above** every 6 months.
- b. You must also keep records and reports as specified in the general provisions of 40 CFR 60 and 40 CFR 63 as shown in Table 1 of 40 CFR 63.
- c. Applicable records in the general provisions include items such as SSM plans and the SSM plan reports.

[40 CFR 63.1980; and Rule 62-204.800(11)(b)59, F.A.C.]

A.33. Recordkeeping Requirements.

- a. Any permittee subject to the provisions of this part must maintain records of the occurrence and duration of any SSM in the operation of an affected facility; any malfunction of the air pollution

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Subsection A. Emissions Unit 001

control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

- b. Any permittee subject to the provisions of this part must maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part recorded in a permanent form suitable for inspection. The file must be retained for at least two years following the date of such measurements, maintenance, reports, and records.

[40 CFR 60.7; and Rule 62-204.800(4)(a), F.A.C.]

Landfill Closure Requirements

A.34. Collection and Control System Capping or Removal Requirements. The collection and control system may be capped or removed provided that the following conditions are met:

- a. The landfill must be a closed landfill as defined in 40 CFR 60.751 of NSPS Subpart WWW. A closure report must be submitted to the Department as provided in 40 CFR 60.757(d);
- b. The collection and control system must have been in operation a minimum of 15 years; and
- c. Following the procedures specified in **Specific Condition A.25. above**, the calculated NMOC gas produced by the landfill must be less than 50 Mg/year on three successive test dates. The test dates must be no less than 90 days apart, and no more than 180 days apart.

[40 CFR 60.752(b)(2)(v); and Rule 62-204.800(8)(b)77, F.A.C.]

A.35. Landfill Closure. When an MSW landfill subject to NSPS Subpart WWW is closed, the permittee is no longer subject to the requirement to maintain an operating permit under part 70 or 71 of this chapter for the landfill if the landfill is not otherwise subject to the requirements of either part 70 or 71 and if either of the following conditions are met:

- a. The landfill was never subject to the requirement for a control system under 40 CFR 60.752(b)(2); or
- b. The permittee meets the conditions for control system removal specified in **Specific Condition A.34. above**.

[40 CFR 60.752(d); and Rule 62-204.800(8)(b)77, F.A.C.]

A.36. Landfill Closure Reporting Requirements. A closure report has been submitted to the Compliance Authority, no additional wastes may be placed into the landfill without filing a notification of modification as described under 40 CFR 60.7(a)(4).

[40 CFR 60.757(d); and Rule 62-204.800(8)(b)77, F.A.C.]

A.37. Surface Methane Concentration Monitoring. Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of 500 ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring.

[40 CFR 60.755(f); and Rule 62-204.800(8)(b)77, F.A.C.]

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Subsection B. Emissions Unit 002

The specific conditions in this section apply to the following emissions unit:

EU No.	Brief Description
002	Landfill Gas Utility Flare

The landfill gas flare is an open "candlestick-type" utility flare, manufactured by Landfill Gas Specialties, Inc. (Model PCF1025110), with a maximum volumetric flow rate of 2,000 scfm. The maximum landfill gas throughput to the flare is limited by an 800 scfm blower. The open flare stack is 0.83 feet in diameter with a height of 27 feet above ground. The flare is designed for an overall 98% destruction efficiency of total hydrocarbons at a design flow with a landfill gas methane content of 40% to 60%. The existing flare is equipped with the following: a set of associated flex couplings and manual valves; 10" all aluminum flame arrestor; automatic propane pilot system; 10" pneumatic fail-safe automatic header valve; 36" condensate knockout pot with 20-micron demister; thermal dispersion flow meter and circular chart recorder; Raco Guard-it Autodialer; data logger; and a control rack.

{Permitting Note: These emissions units are regulated under NSPS Subpart A (General Provisions) and NSPS Subpart WWW (Standards of Performance for Municipal Solid Waste Landfills) of 40 CFR 60, adopted and incorporated by reference in Rule 62-204.800(8)(b), F.A.C.}

Essential Potential to Emit (PTE) Parameters

B.1. Permitted Capacity. The open "candlestick-type" utility flare must have a maximum landfill gas flow rate of 800 scfm from the blower.

[Rule 62-210.200(PTE), F.A.C.; and, Permit No. 0890428-010-AC and 0890428-011-AC]

B.2. Authorized Fuels. Only landfill gas and propane (pilot fuel) must be fired in the flare.

[Rule 62-210.200(PTE), F.A.C.; and Permit No. 0890428-010-AC]

B.3. Hours of Operation. This emissions units may operate continuously (8,760 hours/year).

[Rule 62-210.200(PTE), F.A.C.]

Operation Procedures

B.4. Operational Standards.

- a. Always operate the control or treatment system when the collected gas is routed to the system.
- b. Flares must be steam-assisted, air-assisted, or non-assisted.
- c. Flares must always be operated with a flame present.
- d. Flares must always be operated when emissions may be vented to them.

[40 CFR 60.18 and 40 CFR 60.753(f); and Rule 62-204.800(8), F.A.C.]

B.5. Heat Content Specifications.

- a. *Net Heating Value – Flare.* Flares must be used only with the net heating value of the gas being combusted being 11.2 mega joules/standard cubic meter (MJ/scm) (300 British thermal units/standard cubic feet (Btu/scf)) or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted being 7.45 MJ/scm (200 Btu/scf) or greater if the flare is non-assisted. The net heating value of the gas being combusted in a flare must be calculated by the following equation:

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Subsection B. Emissions Unit 002

$$H_T = K \sum_{i=1}^n C_i H_i$$

where:

H_T = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of off gas is based on combustion at 25°C and 760 millimeters (mm) mercury (Hg), but the standard temperature for determining the volume corresponding to one mole is 20°C;

$$K = \text{Constant} \left(\frac{1}{1.740 \times 10^{-7}} \right) \left(\frac{\text{g mole}}{\text{scm}} \right) \left(\frac{\text{MJ}}{\text{kcal}} \right)$$

where the standard temperature for $\left(\frac{\text{g mole}}{\text{scm}} \right)$ is 20°C

C_i = Concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 and measured for hydrogen and CO by American Society for Testing and Materials (ASTM) D1946-77 or 90 (Reapproved 1994) (Incorporated by reference as specified in 40 CFR 60.17); and

H_i = Net heat of combustion of sample component i, kcal/g mole at 25°C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382-76 or 88 or D4809-95 (incorporated by reference as specified in 40 CFR 60.17) if published values are not available or cannot be calculated.

b. *Exit Velocity – Flare.* The actual exit velocity of a flare must be determined by dividing the volumetric flow rate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip.

c. The maximum permitted velocity, V_{max} , for flares complying with Specific Condition B.6. a. below must be determined by the following equation:

$$\log_{10}(V_{max}) = (H_T + 28.8)/31.7$$

where,

V_{max} = Maximum permitted velocity, m/sec

28.8 = Constant

31.7 = Constant

H_T = The net heating value as determined in (a) above.

[40 CFR 60.18(c)(4) and (f); and Rule 62-204.800(8), F.A.C.]

B.6. Maximum Tip Velocity Specifications. Steam-assisted and non-assisted flares must be designed for and operated with an exit velocity, as determined by the methods specified in Specific Condition B.5. a. above, less than 18.3 m/sec (60 feet/sec), except as provided:

- a. Steam-assisted and non-assisted flares designed for and operated with an exit velocity, as determined by the methods specified in Specific Condition B.5. a. above, equal to or greater than 18.3 m/sec (60 feet/sec) but less than 122 m/sec (400 feet/sec) are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf);
- b. Steam-assisted and non-assisted flares designed for and operated with an exit velocity, as determined by the methods specified in Specific Condition B.5. a. above, less than the velocity, V_{max} , as

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determined by the methods specified in **Specific Condition B.5. b. above**, and less than 122 m/sec (400 feet/sec) are allowed.

[40 CFR 60.18(c); and Rule 62-204.800(8), F.A.C.]

B.7. Air-assisted Flares. Air-assisted flares must be designed and operated with an exit velocity less than the velocity, V_{max} , as determined by the method specified in 40 CFR 60.18(f)(6).

[40 CFR 60.18(c); and Rule 62-204.800(8), F.A.C.]

B.8. Circumvention. The permittee must not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly.

[Rule 62-210.650, F.A.C.; and, Permit No. 0890428-006-AC]

Emission Limitations and Standards

B.9. Visible Emissions.

a. Flares must be designed for, and operated with, no visible emissions as determined by the methods specified in **Specific Condition B.5. above**, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

[40 CFR 60.18(c); and Rule 62-204.800(8), F.A.C.]

b. Visible emission from the utility flare must not exceed 20% opacity.

[Permit No. 0890428-010-AC]

Monitoring of Operations

B.10. Flare Monitoring. The permittee of flares must monitor these control devices to ensure that the flares are operated and maintained in conformance with their designs. Applicable subparts will provide provisions stating how the permittee of flares must monitor these control devices.

[40 CFR 60.18(d); and Rule 62-204.800(8), F.A.C.]

B.11. Monitoring of Operations. Each permittee seeking to comply with routing the collected gas to a control system **Specific Condition A.3. b. (2) above** using an open flare must install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment:

- a. A heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame.
- b. A device that records flow to or bypass of the flare. The permittee must either:
 - (1) Install, calibrate, and maintain a gas flow rate measuring device that must record the flow to the control device at least every 15 minutes; or
 - (2) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism must be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

{Permitting Note: The flare is equipped with a UV flame detector and is monitored continuously. The flare system automatically shuts down if no flame is present. The unit is not equipped with a bypass system. The gas flow rate to the flare is continuously recorded using a flow meter.}

[40 CFR 60.18(f), 40 CFR 60.756(c); Rule 62-204.800(8), F.A.C.; and Permit No. 0890428-006-AC]

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Subsection B. Emissions Unit 002

Test Methods and Procedures

B.12. Test Methods. When required, tests must be performed in accordance with the following reference methods:

Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
3C	Determination of Carbon Dioxide, Methane, Nitrogen, and Oxygen from Stationary Sources
22	Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions from Flares

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department.

[Rule 62-297.401, F.A.C.]

B.13. Common Testing Requirements. Unless otherwise specified, tests must be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit.

[Rule 62-297.310, F.A.C.]

{Permitting Note: Air compliance test notifications can now be completed online in the Department's Business Portal. To access this online process, go to <http://www.fldepportal.com/go/home> and sign in (or register if you're a new user) from the link in the upper right corner of the page. On the Welcome page select the Submit option, then select Registration/Notification, and then click on Air Compliance Test Notifications. Once in the process, just carefully read the instructions on each screen (and under the Help tabs) to complete the notification.}

B.14. Annual Compliance Tests Required. During each calendar year (January 1st to December 31st), the flare must be tested to demonstrate compliance with the emissions standards for opacity in accordance with EPA Method 22. The observation period must be 2-hours.

[40 CFR 60.18(f)(1); and Rules 62-204.800(8) and 62-297.310(7), F.A.C.]

B.15. Test Methods and Procedures for Methane Concentration. For the performance test required in **Specific Condition A.3. b. (2) above**, the net heating value of the combusted landfill gas as determined in **Specific Condition B.5. a. above** is calculated from the concentration of methane in the landfill gas as measured by Method 3C. A minimum of three 30-minute Method 3C samples are determined. The measurement of other organic components, hydrogen, and CO is not applicable. Method 3C may be used to determine the landfill gas molecular weight for calculating the flare gas exit velocity under **Specific Condition B.5. b. above**.

[40 CFR 60.754(e); and Rule 62-204.800(8), F.A.C.]

Recordkeeping and Reporting Requirements

B.16. Reporting Schedule. The following reports and notifications must be submitted to the Compliance Authority:

Report	Reporting Deadline	Related Conditions
Equipment Removal	30 days prior to removal or cessation	B.18
Semi-annual Reports	30 days after the end of the semi-annual period	B.19

[Rule 62-213.440(1)(b), F.A.C.]

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Subsection B. Emissions Unit 002

B.17. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

[Rule 62-213.440(1)(b), F.A.C.]

B.18. Equipment Removal Reporting Requirement. Each permittee of a controlled landfill must submit an equipment removal report to the Compliance Authority 30 days prior to removal or cessation of operation of the control equipment.

- a. The equipment removal report must contain all the following items:
 - (1) A copy of the closure report submitted in accordance with 40 CFR 60.757(d);
 - (2) A copy of the initial performance test report demonstrating that the 15-year minimum control period has expired; and
 - (3) Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 50 Mg or greater of NMOC per year.
- b. The Compliance Authority may request such additional information as may be necessary to verify that all the conditions for removal in **Specific Condition A.36. a** above have been met.

[40 CFR 60.757(e); and Rule 62-204.800(8)(b)77, F.A.C.]

B.19. Semi-annual Reports. Each permittee of a landfill seeking to comply with installing a collection and control system **Specific Condition A.23. c. a** above using an active collection system designed in accordance with 40 CFR 60.752(b)(2)(ii) must submit to the Compliance Authority semi-annual reports of the recorded information in **Specific Conditions B.19.a** through **f** below. For enclosed combustion devices and flares, reportable exceedances are defined under **Specific Condition A.31. c. a** above.

- a. Value and length of time for exceedance of applicable parameters monitored under **Specific Condition A.13.a** through **d** above.
- b. Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow as specified under **Specific Condition A.13. a** above.
- c. Description and duration of all periods when the control device was not operating for a period exceeding 1 hour and length of time the control device was not operating.
- d. All periods when the collection system was not operating more than 5 days.
- e. The location of each exceedance of the 500-ppm methane concentration as provided in **Specific Condition A.5. d. a** above and the concentration recorded at each location for which an exceedance was recorded in the previous month.
- f. The date of installation and the location of each well or collection system expansion added pursuant to **Specific Conditions A.10., A.5. a., and A.13. d. a** above.

[40 CFR 60.757(f); and Rule 62-204.800(8)(b)77, F.A.C.]

B.20. Flare Records. Except as provided in 40 CFR 60.752(b)(2)(i)(B), each permittee of a controlled landfill must keep up-to-date, readily accessible records for the life of the control equipment of the following data as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring must be maintained for a minimum of 5 years. Records of the control device vendor specifications must be maintained until removal.

- a. Where a permittee subject to the provisions of NSPS Subpart WWW seeks to demonstrate compliance with **Specific Condition A.3. b. (1)** above through use of an open flare, the flare type (i.e., steam-assisted, air-assisted, or non-assisted), all visible emission readings, heat content

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determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in 40 CFR 60.18; continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame of the flare flame is absent.

[40 CFR 60.758(b)(2); and Rule 62-204.800(8)(b)77, F.A.C.]

B.21. Operation Parameter Records. Except as provided in 40 CFR 60.752(b)(2)(i)(B), each permittee of a controlled landfill subject to the provisions of NSPS Subpart WWW must keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in **Specific Condition A.19. a** above as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded.

- a. Each permittee subject to the provisions of this subpart must keep up-to-date, readily accessible continuous records of the indication of flow to the control device or the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines, specified under **Specific Condition A.19. a** above.
- b. Each permittee seeking to comply with the provisions of this subpart by use of an open flare must keep up-to-date, readily accessible continuous records of the flame or flare pilot flame monitoring specified under **Specific Condition A.19. c. a** above, and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent.

[40 CFR 60.758(c); and Rule 62-204.800(8)(b)77, F.A.C.]

B.22. Exceedance Records. Except as provided in 40 CFR 60.752(b)(2)(i)(B), each permittee subject to the provisions of NSPS Subpart WWW must keep for at least 5 years up-to-date, readily accessible records of all collection and control system exceedances of the operational standards in **Specific Condition A.5. a. a** above, the reading in the subsequent month whether the second reading is an exceedance, and the location of each exceedance.

[40 CFR 60.758(e); and Rule 62-204.800(8)(b)77, F.A.C.]

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Subsection C. Emissions Unit 003

The specific conditions in this section apply to the following emission unit:

EU No.	Brief Description
003	East Side Emergency Diesel Generator (40.2 bhp)

This emissions unit is a stationary compression ignition (CI) reciprocating internal combustion engine (RICE) that has a maximum engine rating of 40.2 brake-horsepower (bhp) at 100% load. The electrical generator has a nominal power rating of 30 kilowatt (kW). This emergency generator is located on the east side of the landfill.

The following table provides important details for this engine:

Engine Identification	Engine Brake HP	Date of Construction	Model Year	Displacement liters/cylinder (l/c)	Engine Manufacturer	Model No.
East Side Emergency Diesel Engine	40 (30 kW)	01/2012	2012	1	Caterpillar	D30-85

(Permitting Note: This CI RICE is regulated under 40 CFR 63, Subpart ZZZZ, NESHAP for Stationary RICE and 40 CFR 60, Subpart IIII, NSPS for Stationary Compression Ignition RICE, adopted in Rules 62.204.800(1)(b) & (8)(b), F.A.C., respectively. This RICE is not a fire pump. This is a "new" stationary emergency CI RICE with a displacement of less than 10 liters per cylinder, located at an area source of HAP, that has been modified, reconstructed or commenced construction on or after 7/1/2005, and that has a post-2007 model year. In accordance with provisions of 40 CFR 63.6590(c)(6), meeting the requirements of 40 CFR 60, Subpart IIII, satisfies compliance with the requirements of Subpart ZZZZ.)

Essential Potential to Emit (PTE) Parameters

C.1. **Authorized Fuel.** The Stationary RICE must use diesel fuel that meets the following requirements for non-road diesel fuel:

- a. **Sulfur Content.** The sulfur content must not exceed = 15 ppm = 0.0015% by weight (ultra-low sulfur) for non-road fuel.
- b. **Cetane and Aromatic.** The fuel must have a minimum cetane index of 40 or must have a maximum aromatic content of 35 volume percent.
- c. **Marking Provisions.** The diesel fuel fired must be free of marker solvent yellow 124 until November 30, 2014. After December 1, 2014, there are no requirements or restrictions on the use of marker solvent yellow 124.
- d. **Use of Existing Fuel.** Any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted.

[40 CFR 60.4207(b), 80.510(c), (f)(2) & (7)]

C.2. **Hours of Operation**

- a. **Emergency Situations.** There is no time limit on the use of emergency stationary RICE in emergency situations.

[40 CFR 60.4211(f)(1)]

- b. **Other Situations.** You may operate your emergency stationary RICE for any combination of the purposes specified in **Specific Conditions C.2. b. (1) through (3)** for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by **Specific Condition C.2. c.** of this section counts as part of the 100 hours per calendar year allowed by this **Specific Condition C.2. b.**

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Subsection C. Emissions Unit 003

- (1) **Maintenance and Testing.** Each RICE is authorized to operate for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours/year. The permittee may petition the Compliance Authority for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours/year.

[40 CFR 60.4211(f)(2)(i)]

- (2) **Emergency Demand Response.** Each RICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see 40 CFR 60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.

[40 CFR 60.4211(f)(2)(ii)]

- (3) **Voltage or Frequency Deviations.** Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5% or greater below standard voltage or frequency.

[40 CFR 60.4211(f)(2)(iii)]

- c. **Non-Emergency Situations.** These RICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in **Specific Condition C.2.b** above. The 50 hours/year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

[40 CFR 60.4211(f)(3)]

- C.3. **Operation and Maintenance.** The permittee must operate and maintain the stationary CI internal combustion engines according to the manufacturer's written instructions or procedures developed by the permittee that are approved by the engine manufacturer. In addition, owners and operators may only change those settings that are permitted by the manufacturer. This RICE must be maintained and operated to meet the emissions limits in **Specific Conditions C.4. through C.6.** below over the entire life of the engine.

[40 CFR 60.4206, 4211(a)(1), (2) & (3)]

Emissions Standards

- C.4. **NOx + NMHC Emissions.** Emissions of Nitrogen oxide (NOx) plus non-methane hydrocarbons (NMHC) must not exceed 7.5 grams per kilowatt hour (g/kW-hr) (5.6 grams per horsepower hour (g/HP-hr)).

[40 CFR 60.4205(b) (Table 2) & 89.112 (Table 1)]

- C.5. **CO Emissions.** CO emissions must not exceed 5.5 g/kW-hr (4.1 g/HP-hr)

[40 CFR 60.4205(b) & Table 2) & 89.112 (Table 1)]

- C.6. **PM Emissions.**

- a. PM emissions must not exceed 0.6 g/kW-hr (0.44 g/HP-hr).

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Subsection C. Emissions Unit 003

[40 CFR 60.4205(b) & 89.112 (Table 1)]

- b. PM emissions must not exceed 0.3 g/kW-hr (0.22 g/HP-hr).

[40 CFR 60.4205(b) & Table 2]

Testing and Compliance Requirements

- C.7. **Engine Certification Requirements.** The permittee must comply with the emissions standards specified above by having purchased an engine certified by the manufacturer to meet those limits. The engine must have been installed and configured according to the manufacturer's emission-related specifications, except as permitted in **Specific Condition C.8. below.**

[40 CFR 60.4211(c)]

- C.8. **Compliance Requirements Due to Loss of Certification.** If the permittee does not install, configure, operate, and maintain the engine and control device according to the manufacturer's emission-related written instructions, or change emission-related settings in a way that is not permitted by the manufacturer, the permittee must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the permittee must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. The permittee must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

[40 CFR 60.4211(g)(3)]

- C.9. **Testing Requirements.** In the event performance tests are required pursuant to **Specific Condition C.8. above,** the following requirements must be met:

- a. **Testing Procedures.** The performance test must be conducted according to the in-use testing procedures in 40 CFR Part 1039, Subpart F.
- b. **NTE Standards.** Exhaust emissions from these engines must not exceed the not-to-exceed (NTE) numerical requirements, rounded to the same number of decimal places as the applicable standard (STD) in **Specific Conditions C.4. through C.6. above,** determined from the following equation:

$$\text{NTE Requirement for Each Pollutant} = (1.25) \times (\text{STD}) \text{ (Eq. 1)}$$

[40 CFR 60.4212(a) & (c)]

- C.10. **Common Testing Requirements.** Unless otherwise specified and if required, tests must be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit.

[Rule 62-297.310, F.A.C.]

Monitoring Requirements

- C.11. **Hour Meter.** The permittee must install a non-resettable hour meter if one is not already installed.

[40 CFR 60.4209(a)]

Records and Reports

- C.12. **Hours of Operation Records.** The permittee must keep records of the operation of the engine in emergency and non-emergency services that are recorded through the non-resettable hour meter. The

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permittee must record the time of operation of the engine and the reason the engine was in operation during that time.

[40 CFR 60.4214(b)]

- C.13. **Maintenance Records.** To demonstrate conformance with the manufacturer's written instructions for maintaining the certified engine and to document when compliance testing must be performed pursuant to **Specific Condition C.8. above,** the permittee must keep the following records.

- a. Engine manufacturer documentation and certification indicating compliance with the standards.
- b. A copy of the manufacturer's written instructions for operation and maintenance of the certified engine.
- c. A written maintenance log detailing the date and type of maintenance performed on the engine, as well as any deviations from the manufacturer's written instructions.

[Rule 62-213.440(1), F.A.C.]

- C.14. **Testing Notification.** At such time that the requirements of **Specific Condition C.8. above** become applicable, the permittee must notify the compliance authority of the date by which the initial compliance test must be performed.

[Rule 62-213.440(1)]

- C.15. **Other Reporting Requirements.** See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting.

[Rule 62-213.440(1)(b), F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection D. Emissions Unit 004 and 007

The specific conditions in this section apply to the following emissions unit:

EU No.	Brief Description
004	Up Front Emergency Diesel Generator (67.1 HP)
007	West Side Emergency Diesel Generator (50 HP)

These emissions units are stationary CI RICE that have a maximum engine rating of 67.1 bhp and 50 bhp at 100% load. The electrical generators have a nominal power rating of 50 kW and 37 kW, respectively. The Up Front emergency generator is located in the front of the landfill, and the West Side emergency generator is located on the west side of the landfill.

The following table provides important details for this engine:

Engine Identification	Engine Brake HP	Date of Construction	Model Year	Displacement liters/cylinder (l/c)	Engine Manufacturer	Model No.
Up Front Emergency Diesel Engine	67.1 (50 kW)	01/2009	2009	1	Caterpillar	D6-6
West Side Emergency Diesel Engine	50 (37 kW)	3/2015	2015	0.725	John Deere	3029TFG89

{Permitting Note: This CI RICE is regulated under 40 CFR 63, Subpart ZZZZ, NESHAP for Stationary RICE and 40 CFR 60, Subpart III, NSPS for Stationary Compression Ignition RICE, adopted in Rules 62.204.800(1)(b) & (8)(b), F.A.C., respectively. This RICE is not a fire pump. This is a "new" stationary emergency CI RICE with a displacement of less than 10 liters per cylinder, located at an area source of HAP, that has been modified, reconstructed or commenced construction on or after 7/11/2005, and that has a post-2007 model year. In accordance with provisions of 40 CFR 63.6590(c)(6), meeting the requirements of 40 CFR 60, Subpart III, satisfies compliance with the requirements of Subpart ZZZZ.}

Essential Potential to Emit (PTE) Parameters

- D.1. **Authorized Fuel.** This Stationary RICE must use diesel fuel that meets the following requirements for non-road diesel fuel:
 - a. **Sulfur Content.** The sulfur content must not exceed = 15 ppm = 0.0015% by weight (ultra-low sulfur) for non-road fuel.
 - b. **Cetane and Aromatic.** The fuel must have a minimum cetane index of 40 or must have a maximum aromatic content of 35 volume percent.
 - c. **Marking Provisions.** The diesel fuel fired must be free of marker solvent yellow 124 until November 30, 2014. After December 1, 2014, there are no requirements or restrictions on the use of marker solvent yellow 124.
 - d. **Use of Existing Fuel.** Any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted.

[40 CFR 60.4207(b), 80.510(c), 80.510(f)(2) & (7)]

D.2. **Hours of Operation.**

- a. **Emergency Situations.** There is no time limit on the use of emergency stationary RICE in emergency situations.

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection D. Emissions Unit 004 and 007

[40 CFR 60.4211(f)(1)]

- b. **Other Situations.** You may operate your emergency stationary RICE for any combination of the purposes specified in **Specific Conditions D.2. b. (1) through (3)** for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by **Specific Conditions D.2. c.** of this section counts as part of the 100 hours per calendar year allowed by this **Specific Conditions D.2. b.**

- (1) **Maintenance and Testing.** Each RICE is authorized to operate for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours/year. The permittee may petition the Compliance Authority for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours/year.

[40 CFR 60.4211(f)(2)(i)]

- (2) **Emergency Demand Response.** Each RICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see 40 CFR 60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.

[40 CFR 60.4211(f)(2)(ii)]

- (3) **Voltage or Frequency Deviations.** Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5% or greater below standard voltage or frequency.

[40 CFR 60.4211(f)(2)(iii)]

- c. **Non-Emergency Situations.** These RICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in **Specific Condition D.2. b. above.** The 50 hours/year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

[40 CFR 60.4211(f)(3)]

- D.3. **Operation and Maintenance.** The permittee must operate and maintain the stationary CI internal combustion engines according to the manufacturer's written instructions or procedures developed by the permittee that are approved by the engine manufacturer. In addition, the permittee may only change those settings that are permitted by the manufacturer. This RICE must be maintained and operated to meet the emissions limits in **Specific Conditions D.4. through D.6 below,** over the entire life of the engine.

[40 CFR 60.4206, 4211(a)(1), (2) & (3)]

Emissions Standards

- D.4. **NO_x + NMHC Emissions.** Emissions of NO_x plus NMHC must not exceed 4.7 g/kW-hr (3.5 grams per horsepower hour (g/HP-hr)).

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection D. Emissions Unit 004 and 007

[40 CFR 60.4205(b) & 89.112 (Table 1)]

- D.5. CO Emissions. CO emissions must not exceed 5.0 g/kW-hr (3.7 g/HP-hr).

[40 CFR 60.4205(b) & 89.112 (Table 1)]

- D.6. PM Emissions. PM emissions must not exceed 0.4 g/kW-hr (0.3 g/HP-hr).

[40 CFR 60.4205(b) & 89.112 (Table 1)]

Testing and Compliance Requirements

- D.7. Engine Certification Requirements. The permittee must comply with the emissions standards specified above by having purchased an engine certified by the manufacturer to meet those limits. The engine must have been installed and configured according to the manufacturer's emission-related specifications, except as permitted in **Specific Condition D.8.** below.

[40 CFR 60.4211(c)]

- D.8. Compliance Requirements Due to Loss of Certification. If the permittee does not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or change emission-related settings in a way that is not permitted by the manufacturer, the permittee must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the permittee must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. The permittee must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

[40 CFR 60.4211(g)(3)]

- D.9. Testing Requirements. In the event performance tests are required pursuant to **Specific Condition D.8.** above, the following requirements must be met:

- a. Testing Procedures. The performance test must be conducted according to the in-use testing procedures in 40 CFR Part 1039, Subpart F.
- b. NTE Standards. Exhaust emissions from these engines must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard (STD) in **Specific Conditions D.4. through D.6.** above, determined from the following equation:

$$\text{NTE Requirement for Each Pollutant} = (1.25) \times (\text{STD}) \text{ (Eq. 1)}$$

[40 CFR 60.4212(a) & (e)]

- D.10. Common Testing Requirements. Unless otherwise specified and if required, tests must be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit.

[Rule 62-297.310, F.A.C.]

Monitoring Requirements

- D.11. Hour Meter. The permittee must install a non-resettable hour meter if one is not already installed.

[40 CFR 60.4209(a)]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection D. Emissions Unit 004 and 007

- D.12. Hours of Operation Records. The permittee must keep records of the operation of the engine in emergency and non-emergency services that are recorded through the non-resettable hour meter. The permittee must record the time of operation of the engine and the reason the engine was in operation during that time.

[40 CFR 60.4214(b)]

- D.13. Maintenance Records. To demonstrate conformance with the manufacturer's written instructions for maintaining the certified engine and to document when compliance testing must be performed pursuant to **Condition D.8.** above, the permittee must keep the following records:

- a. Engine manufacturer documentation and certification indicating compliance with the standards.
- b. A copy of the manufacturer's written instructions for operation and maintenance of the certified engine.
- c. A written maintenance log detailing the date and type of maintenance performed on the engine, as well as any deviations from the manufacturer's written instructions.

[Rule 62-213.440(1), F.A.C.]

- D.14. Testing Notification. At such time that the requirements of **Specific Condition D.8.** above become applicable, the permittee must notify the Compliance Authority of the date by which the initial compliance test must be performed.

[Rule 62-213.440(1)]

- D.15. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

[Rule 62-213.440(1)(b), F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection E. Emissions Unit 005

The specific conditions in this section apply to the following emissions unit:

EU No.	Brief Description
005	Flare Emergency Diesel Generator (167.6 HP)

This emissions unit is a stationary CI RICE that has a maximum engine rating of 167.6 bhp at 100% load. The electrical generator has a nominal power rating of 125 kW. This emergency generator is located at the flare station.

The following table provides important details for this engine:

Engine Identification	Engine Brake HP	Date of Construction	Model Year	Displacement liters/cylinder (l/c)	Engine Manufacturer	Model No.
Flare Emergency Diesel Engine	167.6 (125 kW)	01/2012	2012	1	Perkins	PJ38420

[Permitting Note: This CI RICE is regulated under 40 CFR 63, Subpart ZZZZ, NESHAP for Stationary RICE and 40 CFR 60, Subpart IIII, NSPS for Stationary Compression Ignition RICE, adopted in Rules 62.204.800(1)(b) & (8)(b), F.A.C., respectively. This RICE is not a fire pump. This is a "new" stationary emergency CI RICE with a displacement of less than 10 liters per cylinder, located at an area source of HAP, that has been modified, reconstructed or commenced construction on or after 7/11/2005, and that has a post-2007 model year. In accordance with provisions of 40 CFR 63.6590(c)(6), meeting the requirements of 40 CFR 60, Subpart IIII, satisfies compliance with the requirements of Subpart ZZZZ.]

Essential Potential to Emit (PTE) Parameters

E.1. Authorized Fuel. This Stationary RICE must use diesel fuel that meets the following requirements for non-road diesel fuel:

- a. **Sulfur Content.** The sulfur content must not exceed = 15 ppm = 0.0015% by weight (ultra-low sulfur) for non-road fuel.
- b. **Cetane and Aromatic.** The fuel must have a minimum cetane index of 40 or must have a maximum aromatic content of 35 volume percent.
- c. **Marking Provisions.** The diesel fuel fired must be free of marker solvent yellow 124 until November 30, 2014. After December 1, 2014, there are no requirements or restrictions on the use of marker solvent yellow 124.
- d. **Use of Existing Fuel.** Any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted.

[40 CFR 60.4207(b), 80.510(c), (f)(2) & (7)]

E.2. Hours of Operation.

- a. **Emergency Situations.** There is no time limit on the use of emergency stationary RICE in emergency situations.

[40 CFR 60.4211(f)(1)]

- b. **Other Situations.** The permittee may operate the emergency stationary RICE for any combination of the purposes specified in **Specific Conditions E.2. b. (1) through (3)** for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by **Specific Condition E.2. c.** of this section counts as part of the 100 hours per calendar year allowed by this **Specific Condition E.2. b.**

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection E. Emissions Unit 005

- (1) **Maintenance and Testing.** Each RICE is authorized to operate for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours/year. The permittee may petition the Compliance Authority for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours/year.

[40 CFR 60.4211(f)(2)(i)]

- (2) **Emergency Demand Response.** Each RICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see 40 CFR 60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.

[40 CFR 60.4211(f)(2)(ii)]

- (3) **Voltage or Frequency Deviations.** Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5% or greater below standard voltage or frequency.

[40 CFR 60.4211(f)(2)(iii)]

- c. **Non-Emergency Situations.** These RICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in **Specific Condition E.2.b** above. The 50 hours/year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

[40 CFR 60.4211(f)(3)]

E.3. Operation and Maintenance. The permittee must operate and maintain the stationary CI internal combustion engines according to the manufacturer's written instructions or procedures developed by the permittee that are approved by the engine manufacturer. In addition, the permittee may only change those settings that are permitted by the manufacturer. This RICE must be maintained and operated to meet the emissions limits in **Specific Conditions E.4. through E.6.** over the entire life of the engine.

[40 CFR 60.4206, 4211(a)(1), (2) & (3)]

Emissions Standards

E.4. NOx + NMHC Emission. Emissions of NOx plus NMHC must not exceed 4.0 g/kW-hr (3.0 g/HP-hr).

[40 CFR 60.4205(b) & 89.112 (Table 1)]

E.5. CO Emissions. CO emissions must not exceed 5.0 g/kW-hr (3.7 g/HP-hr).

[40 CFR 60.4205(b) & 89.112 (Table 1)]

E.6. PM Emissions. PM emissions must not exceed 0.3 g/kW-hr (0.22 g/HP-hr).

[40 CFR 60.4205(b) & 89.112 (Table 1)]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection E. Emissions Unit 005

Testing and Compliance Requirements

E.7. Engine Certification Requirements. The permittee must comply with the emissions standards specified above by having purchased an engine certified by the manufacturer to meet those limits. The engine must have been installed and configured according to the manufacturer's emission-related specifications, except as permitted in **Specific Condition E.8. below.**

[40 CFR 60.4211(c)]

E.8. Compliance Requirements Due to Loss of Certification. If the permittee does not install, configure, operate, and maintain the engine and control device according to the manufacturer's emission-related written instructions, or change emission-related settings in a way that is not permitted by the manufacturer, the permittee must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the permittee must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. The permittee must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

[40 CFR 60.4211(g)(3)]

E.9. Testing Requirements. In the event performance tests are required pursuant to **Specific Condition E.8. above**, the following requirements must be met:

- a. Testing Procedures. The performance test must be conducted according to the in-use testing procedures in 40 CFR Part 1039, Subpart F.
- b. NTE Standards. Exhaust emissions from these engines must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard (STD) in **Specific Conditions E.4. through E.6. above**, determined from the following equation:

$$\text{NTE Requirement for Each Pollutant} = (1.25) \times (\text{STD}) \text{ (Eq. 1)}$$

[40 CFR 60.4212(a) & (c)]

E.10. Common Testing Requirements. Unless otherwise specified and if required, tests must be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit.

[Rule 62-297.310, F.A.C.]

Monitoring Requirements

E.11. Hour Meter. The permittee must install a non-resettable hour meter if one is not already installed.

[40 CFR 60.4209(a)]

Records and Reports

E.12. Hours of Operation Records. The permittee must keep records of the operation of the engine in emergency and non-emergency services that are recorded through the non-resettable hour meter. The permittee must record the time of operation of the engine and the reason the engine was in operation during that time.

[40 CFR 60.4214(b)]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection E. Emissions Unit 005

E.13. Maintenance Records. To demonstrate conformance with the manufacturer's written instructions for maintaining the certified engine and to document when compliance testing must be performed pursuant to **Specific Condition E.8. above**, the permittee must keep the following records:

- a. Engine manufacturer documentation and certification indicating compliance with the standards.
- b. A copy of the manufacturer's written instructions for operation and maintenance of the certified engine.
- c. A written maintenance log detailing the date and type of maintenance performed on the engine, as well as any deviations from the manufacturer's written instructions.

[Rule 62-213.440(1), F.A.C.]

E.14. Testing Notification. At such time that the requirements of **Specific Condition E.8. above** become applicable, the permittee must notify the Compliance Authority of the date by which the initial compliance test must be performed.

[Rule 62-213.440(1)]

E.15. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

[Rule 62-213.440(1)(b), F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.
Subsection G. Emissions Unit 007

The specific conditions in this section apply to the following emissions unit:

EU No.	Brief Description
006	Leachate Tanks Emergency Diesel Generator (174.3 HP)

This emissions unit is a stationary CI RICE that has a maximum engine rating of 174.3 bhp at 100% load. The electrical generator has a nominal power rating of 130 kW. This emergency generator is located at the leachate tanks.

The following table provides important details for this engine:

Engine Identification	Engine Brake HP	Date of Construction	Model Year	Displacement liters/cylinder (l/c)	Engine Manufacturer	Model No.
Leachate Tanks Emergency Diesel Engine	174.3 (130 kW)	01/2014	2014	1	John Deere	JD4045TF280

(Permitting Note: This CI RICE is regulated under 40 CFR 63, Subpart ZZZZ, NESHAP for Stationary RICE and 40 CFR 60, Subpart IIII, NSPS for Stationary Compression Ignition RICE, adopted in Rules 62.204.800(1)(b) & (8)(b), F.A.C., respectively. This RICE is not a fire pump. This is a "new" stationary emergency CI RICE with a displacement of less than 10 liters per cylinder, located at an area source of HAP, that has been modified, reconstructed or commenced construction on or after 7/11/2005, and that has a post-2007 model year. In accordance with provisions of 40 CFR 63.6390(c)(6), meeting the requirements of 40 CFR 60, Subpart IIII, satisfies compliance with the requirements of Subpart ZZZZ.)

Essential Potential to Emit (PTE) Parameters

F.1. **Authorized Fuel.** This Stationary RICE must use diesel fuel that meets the following requirements for non-road diesel fuel:

- a. **Sulfur Content.** The sulfur content must not exceed = 15 ppm = 0.0015% by weight (ultra-low sulfur) for non-road fuel.
- b. **Cetane and Aromatic.** The fuel must have a minimum cetane index of 40 or must have a maximum aromatic content of 35 volume percent.
- c. **Marking Provisions.** The diesel fuel fired must be free of marker solvent yellow 124 until November 30, 2014. After December 1, 2014, there are no requirements or restrictions on the use of marker solvent yellow 124.
- d. **Use of Existing Fuel.** Any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted.

[40 CFR 60.4207(b), 80.510(c), (f)(2) & (7)]

F.2. **Hours of Operation.**

- a. **Emergency Situations.** There is no time limit on the use of emergency stationary RICE in emergency situations.

[40 CFR 60.4211(f)(1)]

- b. **Other Situations.** The permittee may operate your emergency stationary RICE for any combination of the purposes specified in Specific Conditions F.2. b. (1) through (3) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by Specific Condition

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.
Subsection G. Emissions Unit 007

F.2. c. of this section counts as part of the 100 hours per calendar year allowed by this Specific Condition F.2. b.

- (1) **Maintenance and Testing.** Each RICE is authorized to operate for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours/year. The permittee may petition the Compliance Authority for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours/year.

[40 CFR 60.4211(f)(2)(i)]

- (2) **Emergency Demand Response.** Each RICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see 40 CFR 60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.

[40 CFR 60.4211(f)(2)(ii)]

- (3) **Voltage or Frequency Deviations.** Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5% or greater below standard voltage or frequency.

[40 CFR 60.4211(f)(2)(iii)]

- c. **Non-emergency Situations.** These RICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in Specific Condition F.2.b above. The 50 hours/year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

[40 CFR 60.4211(f)(3)]

F.3. **Operation and Maintenance.** The permittee must operate and maintain the stationary CI internal combustion engines according to the manufacturer's written instructions or procedures developed by the permittee that are approved by the engine manufacturer. In addition, the permittee may only change those settings that are permitted by the manufacturer. This RICE must be maintained and operated to meet the emissions limits in Specific Conditions F.4 through F.6. below over the entire life of the engine.

[40 CFR 60.4206, 4211(a)(1), (2), & (3)]

Emissions Standards

F.4. **NO_x + NMHC Emissions.** Emissions of NO_x plus NMHC must not exceed 4.0 g/kW-hr (3.0 g/HP-hr).

[40 CFR 60.4205(b) & 89.112 (Table 1)]

F.5. **CO Emissions.** CO emissions must not exceed 3.5 g/kW-hr (2.6 g/HP-hr).[40 CFR 60.4205(b) & 89.112 (Table 1)]

F.6. **PM Emissions.** PM emissions must not exceed 0.2 g/kW-hr (0.15 g/HP-hr).[40 CFR 60.4205(b) & 89.112 (Table 1)]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection G. Emissions Unit 007

Testing and Compliance Requirements

F.7. Engine Certification Requirements. The permittee must comply with the emissions standards specified above by having purchased an engine certified by the manufacturer to meet those limits. The engine must have been installed and configured according to the manufacturer's emission-related specifications, except as permitted in **Specific Condition F.8. below.**

[40 CFR 60.4211(c)]

F.8. Compliance Requirements Due to Loss of Certification. If the permittee does not install, configure, operate, and maintain the engine and control device according to the manufacturer's emission-related written instructions, or change emission-related settings in a way that is not permitted by the manufacturer, the permittee must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the permittee must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. The permittee must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

[40 CFR 60.4211(g)(3)]

F.9. Testing Requirements. In the event performance tests are required pursuant to **Specific Condition F.8. above,** the following requirements must be met:

- a. Testing Procedures. The performance test must be conducted according to the in-use testing procedures in 40 CFR Part 1039, Subpart F.
- b. NTE Standards. Exhaust emissions from these engines must not exceed the not-to-exceed (NTE) numerical requirements, rounded to the same number of decimal places as the applicable standard (STD) in **Specific Conditions F.4. through F.6. above.,** determined from the following equation:

$$\text{NTE Requirement for Each Pollutant} = (1.25) \times (\text{STD}) \text{ (Eq. 1)}$$

[40 CFR 60.4212(a) & (c)]

F.10. Common Testing Requirements. Unless otherwise specified and if required, tests must be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit.

[Rule 62-297.310, F.A.C.]

Monitoring Requirements

F.11. Hour Meter. The permittee must install a non-resettable hour meter if one is not already installed.

[40 CFR 60.4209(a)]

Records and Reports

F.12. Hours of Operation Records. The permittee must keep records of the operation of the engine in emergency and non-emergency services that are recorded through the non-resettable hour meter. The permittee must record the time of operation of the engine and the reason the engine was in operation during that time.

[40 CFR 60.4214(b)]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection G. Emissions Unit 007

F.13. Maintenance Records. To demonstrate conformance with the manufacturer's written instructions for maintaining the certified engine and to document when compliance testing must be performed pursuant to **Specific Condition F.8. above,** the permittee must keep the following records:

- a. Engine manufacturer documentation and certification indicating compliance with the standards.
- b. A copy of the manufacturer's written instructions for operation and maintenance of the certified engine.
- c. A written maintenance log detailing the date and type of maintenance performed on the engine, as well as any deviations from the manufacturer's written instructions.

[Rule 62-213.440(1), F.A.C.]

F.14. Testing Notification. At such time that the requirements of **Condition F.8. above** become applicable, the permittee must notify the compliance authority of the date by which the initial compliance test must be performed.

[Rule 62-213.440(1)]

F.15. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

[Rule 62-213.440(1)(b), F.A.C.]

STATEMENT OF BASIS

Title V Air Operation Permit Renewal
Permit No. 0890428-014-AV

APPLICANT

The applicant for this project is the Nassau County Board of County Commissioners. The applicant's responsible official and mailing address are: Robert T. Companion, Interim County Engineer, Nassau County Board of County Commissioners, West Nassau Class I Landfill, 96161 Nassau Place, Yulee, Florida 32097.

FACILITY DESCRIPTION

The applicant operates the existing West Nassau Class I Landfill, which is located in Nassau County at 46026 Landfill Road, Callahan, Florida.

Figure 1 below illustrates Nassau county and Figure 2 is a satellite image of the landfill.



Figure 1: Nassau county (highlighted in red)

STATEMENT OF BASIS



Figure 2: Satellite Image of closed landfill (via Google Earth Imagery Date: 1/25/2019)

The landfill is comprised of closed unlined cells and closed lined cells. The landfill stopped accepting waste for disposal on October 1, 2009 and entered long-term care on March 25, 2013. The final capacity of the lined portion of the landfill is approximately 3,920,000 cubic yards (2,997,100 cubic meters), and the unlined portion of the landfill is approximately 730,000 cubic yards (562,100 cubic meters). The total permitted landfill capacity (by solid waste program) is approximately 4.65 million cubic yards (3,555,000 cubic meters).

The landfill consists of an active gas collection system that uses a mechanical blower to create a vacuum that draws landfill gas through deposited refuse and into gas collection wells. The system currently consists of 50 landfill gas extraction wells and approximately 11,000 linear feet of header pipe (ranging from 14 inches (") in diameter to 8" in diameter). The facility also consists of 12 leachate collection system cleanout risers that can be used to extract landfill gas. The collected landfill gas is controlled by 2,000 standard cubic feet per minute (scfm) candlestick flare with a limited maximum landfill gas throughput from an 800 scfm blower. The landfill also includes five diesel fired emergency generators (EU 003 – EU 007). The landfill does not contain a bioreactor.

STATEMENT OF BASIS

REGULATED EMISSIONS UNIT IDENTIFICATION NUMBERS AND DESCRIPTIONS

EU No.	Brief Description
001	Municipal Solid Waste Landfill
002	Landfill Gas Utility Flare
003	East Side Emergency Diesel Generator (40.2 bhp)
004	Up Front Emergency Diesel Generator (67.1 HP)
005	Flare Emergency Diesel Generator (167.6 HP)
006	Leachate Tanks Emergency Diesel Generator (174.3 HP)
007	West Side Emergency Diesel Generator (50 HP)

APPLICABLE REGULATIONS

Based on the Title V air operation permit renewal application received on August 8, 2019, this facility is not a major source of hazardous air pollutants (HAP). A summary of applicable regulations is shown in the following table:

Regulation	EU No(s).
<i>Federal Rule Citations</i>	
40 CFR 60, Subpart A, NSPS General Provisions	001 – 007
40 CFR 60, Subpart WWW: NSPS Standards of Performance for MSW Landfills	001 & 002
40 CFR 60, Subpart IIII: NSPS Standards of Performance for Stationary CI ICE	003 – 007
40 CFR 61, Subpart A: NESHAP General Provisions	001
40 CFR 61, Subpart M: NESHAP for Asbestos	001
40 CFR 63, Subpart A: NESHAP General Provisions	001
40 CFR 63, Subpart AAAA: NESHAP MSW Landfills	001 & 002
<i>State Rule Citations</i>	
Rule 62-4, F.A.C.: Permits	001 – 007
Rule 62-204, F.A.C.: Air Pollution Control – General Provisions	
Rule 62-210, F.A.C.: Stationary Sources – General Requirements	
Rule 62-213, F.A.C.: Operation Permits for Major Sources of Air Pollution	
Rule 62-296, F.A.C.: Stationary Sources – Emission Standards	
Rule 62-297, F.A.C.: Stationary Sources – Emissions Monitoring	

This facility also includes miscellaneous unregulated/insignificant emissions units and/or activities.

PROJECT DESCRIPTION

The purpose of this permitting project is to renew the existing Title V permit for the above referenced facility.

Application Link:
[https://depedms.dep.state.fl.us:443/Oculus/servlet/shell?command=getEntity&\[guid=75.212251.11\]&\[profile=Permitting_Authorization\]](https://depedms.dep.state.fl.us:443/Oculus/servlet/shell?command=getEntity&[guid=75.212251.11]&[profile=Permitting_Authorization])

STATEMENT OF BASIS

Application Attachment:
[https://depedms.dep.state.fl.us:443/Oculus/servlet/shell?command=getEntity&\[guid=75.212252.11\]&\[profile=Permitting_Authorization\]](https://depedms.dep.state.fl.us:443/Oculus/servlet/shell?command=getEntity&[guid=75.212252.11]&[profile=Permitting_Authorization])

PROCESSING SCHEDULE AND RELATED DOCUMENTS

Initial Title V Air Operation Permit issued August 23, 1999
 Current Title V Air Operation Permit Renewal issued April 8, 2015
 Title V Air Operation Permit Revision March 22, 2017
 Application for a Title V Air Operation Permit Renewal received August 19, 2019

PRIMARY REGULATORY REQUIREMENTS

Standard Industrial Classification (SIC) Code: 4953 – Refuse Systems.

North American Industry Classification System (NAICS): 562212 – Garbage Disposal Landfills.

HAP: The facility is not identified as a major source of hazardous air pollutants (HAP).

Title V: The facility is a Title V major source of air pollution in accordance with Chapter 62-213, Florida Administrative Code (F.A.C.).

NSPS: The facility operates units subject to the New Source Performance Standards (NSPS) of 40 Code of Federal Regulations (CFR) 60.

NESHAP: The facility operates units subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) of 40 CFR 63.

CAM: Compliance Assurance Monitoring (CAM) does not apply to any of the units at the facility. CAM applies to emissions units that have pre-control emissions of greater than 100 tons, are subject to an emissions limit and must use a control device to meet that emissions limit. No emissions units at the facility are subject to an emissions standard covered under CAM or use a control device to comply with the standard.

GHG: The facility is not identified as a major source of green house gas (GHG) pollutants.

PROJECT REVIEW

This project is a renewal of Permit No. 0890428-009-AV with no significant changes from the Permit Revision No. 0890428-013-AV.

CONCLUSION

This project renews the Title V air operation permit No. 0890428-013-AV, which was effective on August 23, 1999. This Title V air operation permit renewal is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-4, 62-210, and 62-213, F.A.C.

**SECTION IV
APPENDICES**

- Appendix A, Glossary.
 - Appendix AO, Alternate Operating Parameter Values – Wells.
 - Appendix AS, Alternate Standards for Low Gas Production Wells and Leachate Risers.
 - Appendix ASP, Leachate Collection Cleanout Risers – Oxygen Intrusion.
 - Appendix I, List of Insignificant Emissions Units and/or Activities.
 - Appendix NESHAP, Subpart A of 40 CFR 61 – General Provisions.
 - Appendix NESHAP, Subpart M – National Emission Standards for Asbestos.
 - Appendix NESHAP, Subpart A of 40 CFR 63 – General Provisions.
 - Appendix NESHAP, Subpart AAAAA – National Emission Standards for Hazardous Air Pollutants (NESHAP) for Municipal Solid Waste (MSW) Landfills.
 - Appendix NSPS, Subpart A of 40 CFR 60 – General Provisions.
 - Appendix NSPS, Subpart WWW – Standards of Performance for MSW Landfills.
 - Appendix NSPS, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.
 - Appendix RR, Facility-wide Reporting Requirements.
 - Appendix TR, Facility-wide Testing Requirements.
 - Appendix TV, Title V General Conditions.
- Referenced Attachments (Included for Convenience and Informational Purposes Only):
- Figure 1, Summary Report-Gaseous and Opacity Excess Emission and Monitoring System Performance (40 CFR 60, July, 1996).
 - Table H, Permit History.
 - Table 1, Summary of Air Pollutant Standards and Terms.
 - Table 2, Compliance Requirements.

**APPENDIX A
ABBREVIATIONS, ACRONYMS, CITATIONS AND IDENTIFICATION NUMBERS**

- | | |
|---|--|
| <p>Abbreviations and Acronyms:</p> <ul style="list-style-type: none"> ° F: degrees Fahrenheit acfm: actual cubic feet per minute AOR: Annual Operating Report ARMS: Air Resource Management System (Department's database) BACT: best available control technology BHP: brake horsepower Btu: British thermal units CAA: Clean Air Act CAAA: Clean Air Act Amendments of 1990 CAM: compliance assurance monitoring CEMS: continuous emissions monitoring system cfm: cubic feet per minute CFR: Code of Federal Regulations CI: compression ignition CO: carbon monoxide COMS: continuous opacity monitoring system DARM: Division of Air Resource Management DCA: Department of Community Affairs DEP: Department of Environmental Protection Department: Department of Environmental Protection dscfm: dry standard cubic feet per minute EPA: Environmental Protection Agency ESP: electrostatic precipitator (control system for reducing particulate matter) EU: emissions unit F.A.C.: Florida Administrative Code F.D.: forced draft F.S.: Florida Statutes FGR: flue gas recirculation Fl: fluoride ft²: square feet ft³: cubic feet g: grams gpm: gallons per minute gr: grains HAP: hazardous air pollutant HP: horsepower Hg: mercury ICE: internal combustion engine I.D.: induced draft ID: identification ISO: International Standards Organization (refers to those conditions at 288 Kelvin, 60% relative humidity and 101.3 kilopascals pressure.) kPa: kilopascals kW: kilowatts LAT: Latitude lb: pound lbs/hr: pounds per hour | <ul style="list-style-type: none"> LONG: Longitude MACT: maximum achievable technology mm: millimeter MMBtu: million British thermal units MSDS: material safety data sheets MW: megawatt NESHAP: National Emissions Standards for Hazardous Air Pollutants NOx: nitrogen oxides NSPS: New Source Performance Standards O&M: operation and maintenance O₂: oxygen ORIS: Office of Regulatory Information Systems OS: Organic Solvent Pb: lead PM: particulate matter PM₁₀: particulate matter with a mean aerodynamic diameter of 10 microns or less PSD: prevention of significant deterioration psi: pounds per square inch PTE: potential to emit RACT: reasonably available control technology RATA: relative accuracy test audit RICE: reciprocating internal combustion engine RMP: Risk Management Plan RO: Responsible Official SAM: sulfuric acid mist scf: standard cubic feet scfm: standard cubic feet per minute SI: spark ignition SIC: standard industrial classification code SNCR: selective non-catalytic reduction (control system used for reducing emissions of nitrogen oxides) SOA: Specific Operating Agreement SO₂: sulfur dioxide TPH: tons per hour TPY: tons per year UTM: Universal Transverse Mercator coordinate system VE: visible emissions VOC: volatile organic compounds x: By or times |
|---|--|

APPENDIX A

ABBREVIATIONS, ACRONYMS, CITATIONS AND IDENTIFICATION NUMBERS

Citations:

The following examples illustrate the methods used in this permit to abbreviate and cite the references of rules, regulations, guidance memorandums, permit numbers and ID numbers.

Code of Federal Regulations:

Example: [40 CFR 60.334]

Where:
 40 refers to Title 40
 CFR refers to Code of Federal Regulations
 60 refers to Part 60
 60.334 refers to Regulation 60.334

Florida Administrative Code (F.A.C.) Rules:

Example: [Rule 62-213.205, F.A.C.]

Where:
 62 refers to Title 62
 62-213 refers to Chapter 62-213
 62-213.205 refers to Rule 62-213.205, F.A.C.

Identification Numbers:

Facility Identification (ID) Number:

Example: Facility ID No.: 1050221

Where:
 105 = 3-digit number code identifying the facility is located in Polk County
 0221 = 4-digit number assigned by state database.

Permit Numbers:

Example: 1050221-002-AV, or
 1050221-001-AC

Where:
 AC = Air Construction Permit
 AV = Air Operation Permit (Title V Source)
 105 = 3-digit number code identifying the facility is located in Polk County
 0221 = 4-digit number assigned by permit tracking database
 001 or 002 = 3-digit sequential project number assigned by permit tracking database

Example: PSD-FL-185
 PA95-01
 AC53-208321

Where:
 PSD = Prevention of Significant Deterioration Permit
 PA = Power Plant Siting Act Permit
 AC53 = old Air Construction Permit numbering identifying the facility is located in Polk County

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APPENDIX AO

ALTERNATE OPERATING PARAMETER VALUES - WELLS

ALTERNATE OPERATING PARAMETER VALUE FOR SPECIFIED GAS EXTRACTION WELLS

- Purpose:** Below are the gas extraction wells that have received approval by the Department (the Permitting Authority) for a higher operating parameter value as described in this Appendix. Prior to adding or removing gas extraction wells to/from this list, the owner or operator shall provide written notification and supporting information/documentation to the Department in accordance with 40 CFR 60.753(c). In addition, the owner or operator shall obtain approval from the Department prior to the addition or removal of gas extraction wells to/from this list. A higher operating parameter value is not applicable until the owner or operator has received formal, written approval from the Department. A Title V Permit Revision is not required for this approval process.
- The owner or operator shall continue to conduct monitoring as required by 40 CFR 60 Subpart WWW for a gas extraction well with a higher operating parameter value approval. The results of all monitoring shall be reported to the Department on a semiannual basis in accordance with the requirements of 40 CFR 60 Subpart WWW. The reports shall identify the gas extraction wells with a higher operating parameter value approval.
- If monitoring demonstrates that the higher operating parameter value and the operational requirements of 40 CFR 60.753(b), (c), and (d), are not met, the owner or operator shall conduct corrective action as specified in 40 CFR 60.755(a)(3) through (5) or CFR 60.755(c). Should there be any indication of fire or inhibited anaerobic decomposition by the killing methanogens (sudden significant decreases in the methane production rate) at an approved gas extraction well, the Department reserves the right to revisit the approval for a given well including the possibility of revoking the approval.

Approved Gas Extraction Wells: The gas extraction wells listed below shall be operated with a landfill gas temperature less than the following:

Well Number	LFG Temperature Value
GW-7	< 68.3° C (155° F)
GW-8	< 68.3° C (155° F)
GW-9	< 68.3° C (155° F)
GW-12	< 68.3° C (155° F)
GW-13	< 68.3° C (155° F)
GW-14	< 68.3° C (155° F)
GW-18	< 68.3° C (155° F)
GW-19	< 68.3° C (155° F)
GW-20	< 68.3° C (155° F)
GW-22	< 68.3° C (155° F)
GW-23	< 68.3° C (155° F)
GW-24	< 68.3° C (155° F)
GW-28	< 68.3° C (155° F)

Well Number	LFG Temperature Value
GW-29	< 68.3° C (155° F)
GW-30	< 68.3° C (155° F)
GW-34	< 68.3° C (155° F)

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APPENDIX AS
ALTERNATE STANDARDS FOR LOW GAS PRODUCTION WELLS

Purpose: This is to allow for alternate standards for oxygen and pressure pertaining to extraction wells where gas flows are very low and exceedances of oxygen and pressure at these wells are not due to operational or maintenance issues but are the result of declining gas quality and gas production in an area of older waste. The gas production and gas quality appear to be so low that applying even minimal vacuum, over time, can result in air infiltration that causes exceedances of the applicable oxygen concentration limit. Shutting down such wells will prevent the air infiltration that leads to the oxygen exceedances, but shutting down a well may result in positive pressure in the wellhead as uncollected landfill gas accumulates. Therefore, simultaneously complying with both the pressure and oxygen concentration limits in 40 CFR § 60.753 can be difficult for such wells. Instead of decommissioning or permanently disconnecting such wells, which would result in no gas control, the County desires flexibility to keep operating them and allow the locations to remain shut off, under positive pressure, with monthly monitoring and periodic adjustment to vacuum to remove accumulated landfill gas.

Therefore, the Department approves the alternate procedures described below:

1. When the oxygen concentration at the well does not decline to acceptable levels after more than one hour of reduced vacuum, the location may be shut off until the gas quality recovers.
2. The monthly monitoring required by 40 CFR Part 60, Subpart WWW will be conducted for these wells, but positive pressure or elevated oxygen concentrations will not be considered as exceedances of the operating limits in 40 CFR § 60.753. However, the monthly monitoring results must be reported to the Department on a semi-annual basis and can be included as part of the semiannual report required by 40 CFR 63.1980 (f).
3. If monthly monitoring indicates that pressure has built up in the well and the oxygen concentration still exceeds 5 percent, the well will be briefly opened to relieve the pressure, routing the gas through the flare, and may then be shut down until it is monitored the following month.
4. Surface monitoring as required by 40 CFR Part 60, Subpart WWW will continue to be conducted in this area. Standard remediation steps, including evaluating the need to return the well to full-time service, must be followed if exceedances of the 500 ppm methane surface concentration limits are detected in the immediate vicinity.
5. If the monthly monitoring indicates that gas quality has improved (i.e., the oxygen concentration has dropped below 5 percent), the well will be brought back on line until the gas quality is no longer in compliance. If the oxygen levels can be maintained below the regulatory limit of 5 percent, this alternate operating procedure is terminated and the well shall be operated in accordance with regulatory requirements.
6. Below are the gas extraction wells that have low gas production and are approved by the Department to use the alternate standards as described in this appendix. To add or remove wells from the list, the owner or operator shall notify and furnish supporting information in order to obtain approval from the Department. The supporting information shall include, at a minimum, monitoring results for the wells. These alternate standards are not applicable until the owner or operator receives formal approval from the Department. A Title V permit revision is not required for this approval process."

Approved Gas Extraction Wells

Gas Extraction Well ID Number
GW-6
GW-7R
GW-11
GW-17
GW-40
GW-43
GW-46
GW-48
GW-49
GW-50

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APPENDIX ASP
LEACHATE COLLECTION CLEANOUT RISERS – OXYGEN INTRUSION



Florida Department of
Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Noah Valenstein
Secretary

Sent by Electronic mail – Received Receipt Requested

Ms. Becky Bray, Public Works Director
Nassau County Board of County Commissioners
96161 Nassau Place
Yulee, Florida 32097

Re: Alternate Sampling Procedure (ASP) Request 18-C-AP
Alternative Oxygen Standard for Low Gas Producing Well GW-7R
West Nassau Landfill
Facility ID No. 0890428

Dear Ms. Bray:

The Office of Permitting and Compliance received a request on behalf of Nassau County's West Nassau Landfill from Mr. Omar Smith of SZL, Incorporated, seeking the addition of well GW-7R to the facility's Alternative Standards for Low Gas Production Wells, contained in its current Title V Air Operation Permit No. 0890428-009-AV as Appendix AS. Appendix AS allows for alternate standards for oxygen and pressure pertaining to extraction wells where gas flows are very low, and exceedances of oxygen and pressure at those wells that are not due to operational or maintenance issues, but are the result of declining gas quality and gas production in an area of older waste. The West Nassau Landfill is required by 40 CFR Part 60, Subpart WWW to operate each gas extraction well in the collection system under negative pressure and with either a nitrogen level less than 20 percent or an oxygen level less than 5 percent.

The requirements of 40 CFR 60.753(c) state: "Operate each interior wellhead in the collection system with a landfill gas temperature less than 55°C and with either a nitrogen level less than 20 percent or an oxygen level less than 5 percent. The owner or operator may establish a higher operating temperature, nitrogen, or oxygen value at a particular well. A higher operating value demonstration shall show supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens."

On December 12, 2017, the Department approved an alternative timeline of 120 days to allow the facility to replace well GW-7 to bring it back in compliance. According to the petitioner, well GW-7 was replaced with well GW-7R; however, the facility was unable to bring the well back in compliance with oxygen, due to low gas production. The request states that during re-drilling, the open drill hole and open well piping exhibited signs of vacuum, which drew in air into the landfill. Air intrusion changed the method of decomposition from anaerobic to aerobic, thereby dropping methane production to 10-15%. The petitioner hopes that over time, as the current oxygen begins to be consumed and anaerobic activity takes over, the wellfield will stabilize. Addition of Well GW-7R to the facility's Alternative Standards for Low Gas Production Wells will allow sufficient time for methanogenic activity to stabilize and begin generating methane again.

Based on this information and in accordance with the provisions of 40 CFR 60.753(c), Nassau County's West Nassau Landfill may add gas extraction well GW-7R to the facility's Alternative Standards for Low Gas Production Wells, contained in its current Title V Air Operation Permit No. 0890428-009-AV as Appendix AS.

The applicant shall incorporate this alternate procedure into the permit at the next opening for revision or renewal.

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APPENDIX ASP
LEACHATE COLLECTION CLEANOUT RISERS – OXYGEN INTRUSION

Alternate Sampling Procedure

Please contact Pawan Subramanian by e-mail at Pawan.Subramanian@dep.state.fl.us or by telephone at 850/717-9033 if you have any questions regarding this determination.

The Department's proposed agency action shall become final unless a petition for an administrative hearing is timely under Sections 120.569 and 120.57, F.S., before the deadline for filing a petition set forth below. On the filing of a timely petition, this action will not be final and effective until further order of the Department or the petition has been dismissed or withdrawn. Because the administrative hearing process is designed to formulate final agency action, the hearing process may result in a modification of the agency action or even reversal of the agency action.

A person whose substantial interests are affected by the proposed decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. Petitions filed by the applicant or any of the parties listed below must be filed within 14 days of receipt of this written notice. Petitions filed by any other person must be filed within 14 days of receipt of this proposed action. A petitioner must mail a copy of the petition to the applicant at the address indicated above, at the time of filing. A petition for administrative hearing must contain the information set forth below and must be filed (received) with the Agency Clerk in the Office of General Counsel, 3900 Commonwealth Boulevard, MS 35, Tallahassee, Florida 32399-3000, Agency_Clerk@dep.state.fl.us, before the deadline.

The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, any email address, telephone number and any facsimile number of the petitioner; the name, address, any email address, telephone number, and any facsimile number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when each petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and, (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the permitting authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the permitting authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Once this decision becomes final, any party to this order has the right to seek judicial review by the filing of a Notice of Appeal pursuant to Rules 9.110 and 9.190, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 3900 Commonwealth Boulevard, MS 35, Tallahassee, Florida, 32399-3000, Agency_Clerk@dep.state.fl.us; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within thirty days from the date this action is filed with the Agency Clerk.

Mediation is not available in this proceeding.

West Nassau Landfill
Alternative Oxygen Standard for Low Gas Producing Well GW-7R
Page 2 of 3

Project No. 18-C-AP
Facility ID No. 0890428

APPENDIX ASP
LEACHATE COLLECTION CLEANOUT RISERS – OXYGEN INTRUSION

Alternate Sampling Procedure

Any party to this order has the right to seek judicial review of it under Section 120.68, F.S., by the filing of a Notice of Appeal, under Rule 9.110 of the Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000; and, by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within thirty days from the date this notice is filed with the Clerk of the permitting authority.

Executed in Tallahassee, Florida.

Syed Arif

Syed Arif, P.E., Program Administrator
Office of Permitting and Compliance
Division of Air Resource Management

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this letter of authorization for an alternate sampling procedure was sent by electronic mail with received receipt requested before the close of business on the date indicated below to the following persons.

Ms. Becky Bray, Public Works Director, Nassau County: bbmy@nassaucountyfl.com
Mr. Omar Smith, VP, S2L Incorporated: osmith@s2li.com
Mr. Richard Rachal, Administrator, NED: richard.rachal@dep.state.fl.us
Mr. David McNeal, US EPA Region 4: mcneal.dave@epa.gov
Ms. Lynn Searce, DEP OPC: lynn.searce@dep.state.fl.us

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency clerk, receipt of which is hereby acknowledged.

2018.02.05 15:51:49 -05'00'

SA/dlr/pls

West Nassau Landfill
Alternative Oxygen Standard for Low Gas Producing Well GW-7R
Page 3 of 3

Project No. 18-C-AP
Facility ID No. 0890428

APPENDIX ASP

LEACHATE COLLECTION CLEANOUT RISERS – OXYGEN INTRUSION



Florida Department of
Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Rick Scott
Governor

Carlos Lopez-Cautera
Lt. Governor

Noah Valenstein
Secretary

Sent by Electronic mail – Received Receipt Requested

Ms. Becky Bray, Public Works Director
Nassau County Board of County Commissioners
96161 Nassau Place
Yulee, Florida 32097

Re: Alternate Sampling Procedure (ASP) Request 18-H-AP
Alternative Oxygen Standard for Low Gas Producing Well GW-17
West Nassau Landfill
Facility ID No. 0890428

Dear Ms. Bray:

The Office of Permitting and Compliance received a request on behalf of Nassau County's West Nassau Landfill from Mr. Omar Smith of SZL, Incorporated, seeking the addition of well GW-17 to the facility's Alternative Standards for Low Gas Production Wells, contained in its current Title V Air Operation Permit No. 0890428-009-AV as Appendix AS. Appendix AS allows for alternate standards for oxygen and pressure pertaining to extraction wells where gas flows are very low, and exceedances of oxygen and pressure at those wells that are not due to operational or maintenance issues, but are the result of declining gas quality and gas production in an area of older waste. The West Nassau Landfill is required by 40 CFR Part 60, Subpart WWW to operate each gas extraction well in the collection system under negative pressure and with either a nitrogen level less than 20 percent or an oxygen level less than 5 percent.

The requirements of 40 CFR 60.753(c) state: "Operate each interior wellhead in the collection system with a landfill gas temperature less than 53°C and with either a nitrogen level less than 20 percent or an oxygen level less than 5 percent. The owner or operator may establish a higher operating temperature, nitrogen, or oxygen value at a particular well. A higher operating value demonstration shall show supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens."

On January 15, 2018, Nassau County requested a 60-day alternative timeline from the Department's Northeast District office for corrective action to repair landfill extraction well GW-17 at its West Nassau Landfill, due to high measured oxygen (O₂) levels (>5%). The attempt to field repair the well was unsuccessful. The County determined that GW-17 is not discharging any significant quantity of landfill gas in passive mode. The County further states that, normally, a medium to high production well will discharge landfill gas in a passive mode, but only de-minimus volumes of gas appear to be discharging from GW-17. Therefore, the County concludes that any attempt to try to adjust this extraction well to within New Source Performance Standards operating parameters will be unsuccessful. Therefore, the County requests approval to operate GW-17 under the alternative procedure described in Appendix AS of the current Title V Air Operation Permit No. 0890428-009-AV. Previous ASP's, No. 16-N-AP, for wells GW-40, GW-43, GW-46, GW-49, and GW-50, and ASP No. 18-C-AP for well GW-7R, provides the same relief as requested for GW-17.

Based on this information and in accordance with the provisions of 40 CFR 60.753(c), Nassau County's West Nassau Landfill may add gas extraction well GW-17 to the facility's Alternative Standards for Low Gas Production Wells, contained in its current Title V Air Operation Permit No. 0890428-009-AV as Appendix AS.

The applicant shall incorporate this alternate procedure into the permit at the next opening for revision or renewal.

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Nassau County Board of Commissioners
West Nassau Class I Landfill

Page ASP-4 of 7

Permit No. 0890428-014-AV
Title V Air Operation Permit Revision

APPENDIX ASP

LEACHATE COLLECTION CLEANOUT RISERS – OXYGEN INTRUSION

Alternate Sampling Procedure

Please contact Tom Rogers by e-mail at Tom.Rogers@dep.state.fl.us or by telephone at 850/717-9102 if you have any questions regarding this determination.

The Department's proposed agency action shall become final unless a petition for an administrative hearing is timely under Sections 120.569 and 120.57, F.S., before the deadline for filing a petition set forth below. On the filing of a timely petition, this action will not be final and effective until further order of the Department or the petition has been dismissed or withdrawn. Because the administrative hearing process is designed to formulate final agency action, the hearing process may result in a modification of the agency action or even reversal of the agency action.

A person whose substantial interests are affected by the proposed decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. Petitions filed by the applicant or any of the parties listed below must be filed within 14 days of receipt of this written notice. Petitions filed by any other person must be filed within 14 days of receipt of this proposed action. A petitioner must mail a copy of the petition to the applicant at the address indicated above, at the time of filing. A petition for administrative hearing must contain the information set forth below and must be filed (received) with the Agency Clerk in the Office of General Counsel, 3900 Commonwealth Boulevard, MS 35, Tallahassee, Florida 32399-3000. Agency_Clerk@dep.state.fl.us, before the deadline.

The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, any email address, telephone number and any facsimile number of the petitioner; the name, address, any email address, telephone number, and any facsimile number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when each petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and, (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the permitting authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the permitting authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Once this decision becomes final, any party to this order has the right to seek judicial review by the filing of a Notice of Appeal pursuant to Rules 9.110 and 9.190, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 3900 Commonwealth Boulevard, MS 35, Tallahassee, Florida, 32399-3000, Agency_Clerk@dep.state.fl.us, and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within thirty days from the date this action is filed with the Agency Clerk.

Mediation is not available in this proceeding.

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APPENDIX ASP
LEACHATE COLLECTION CLEANOUT RISERS – OXYGEN INTRUSION

Alternate Sampling Procedure

Any party to this order has the right to seek judicial review of it under Section 120.68, F.S., by the filing of a Notice of Appeal, under Rule 9.110 of the Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000; and, by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within thirty days from the date this notice is filed with the Clerk of the permitting authority.

Executed in Tallahassee, Florida.

Syed Arif

Syed Arif, P.E., Program Administrator
Office of Permitting and Compliance
Division of Air Resource Management

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this letter of authorization for an alternate sampling procedure was sent by electronic mail with received receipt requested before the close of business on the date indicated below to the following persons.

Ms. Becky Bray, Public Works Director, Nassau County: bbray@nassaucountyfl.com
Mr. Omar Smith, VP, SZL Incorporated: osmith@szl.com
Mr. Richard Rachal, Administrator, NED: richard.rachal@dep.state.fl.us
Mr. David McNeal, US EPA Region 4: dmcneal.dave@epa.gov
Ms. Lynn Searce, DEP OPC: lynn.searce@dep.state.fl.us

FILED AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency clerk, receipt of which is hereby acknowledged

Syeda Arif 2018.02.28 09:45:48 -05'00'

SAJ/d/tr

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APPENDIX I
LIST OF INSIGNIFICANT EMISSIONS UNITS AND/OR ACTIVITIES

The facilities, emissions units, or pollutant-emitting activities listed in Rule 62-210.300(3)(a), F.A.C., Categorical Exemptions, or that meet the criteria specified in Rule 62-210.300(3)(b)1., F.A.C., Generic Emissions Unit Exemption, are exempt from the permitting requirements of Chapters 62-210, 62-212 and 62-4, F.A.C.; provided, however, that exempt emissions units shall be subject to any applicable emission limiting standards and the emissions from exempt emissions units or activities shall be considered in determining the potential emissions of the facility containing such emissions units. Emissions units and pollutant-emitting activities exempt from permitting under Rules 62-210.300(3)(a) and (b)1., F.A.C., shall not be exempt from the permitting requirements of Chapter 62-213, F.A.C., if they are contained within a Title V source; however, such emissions units and activities shall be considered insignificant for Title V purposes provided they also meet the criteria of Rule 62-213.430(6)(b), F.A.C. No emissions unit shall be entitled to an exemption from permitting under Rules 62-210.300(3)(a) and (b)1., F.A.C., if its emissions, in combination with the emissions of other units and activities at the facility, would cause the facility to emit or have the potential to emit any pollutant in such amount as to make the facility a Title V source.

The below listed emissions units and/or activities are considered insignificant pursuant to Rule 62-213.430(6), F.A.C.

Brief Description of Emissions Units and/or Activities

1. Vehicle and heavy equipment or machinery operated on site that contribute to a non-significant amount of fugitive particulate matter, including 1 excavator, 1 backhoe, 1 rubber tire loader, 1 multi-terrain loader, 1 farm tractor, 1 slope mower, 1 side arm mover, 1 bush hog, 1 roll-off truck, 3 service type pick-up trucks;
2. Uncontrolled particulate emissions generated by wind;
3. Liquid storage tanks/vessels, including 1 2,500-gallon diesel fuel storage tank, 3 20,000-gallon leachate storage vessels, and 1 250-gallon waste oil tank;
4. Portable gas powered emergency generator;
5. Fire and safety equipment to include fire extinguishers and 1-5,000 gallon water tanker with gas driven pump;
6. Surface coating operations using less than 3 gallons per year;
7. Equipment used for surface coating;
8. Lubrication operations of landfill equipment on a semi-annual basis;
9. Plant maintenance and upkeep activities (e.g., grounds keeping, general repairs, cleaning, welding);
10. Application of herbicide;
11. Vehicle refueling operations for diesel operated equipment;
12. Air compressors and pneumatically operated hand tools;
13. Use of environmentally safe degreasers for parts cleaning;
14. Air-conditioning and ventilating units used for human comfort that do not exhaust air pollutants into the ambient air from any industrial process;
15. Consumer use of office equipment and products;
16. Janitorial services and consumer use of janitorial products;
17. Bathroom/toilet vent emissions;
18. Fugitive dust from travel and activity on unpaved surfaces.

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GENERAL PROVISIONS

e-CFR data is current as of September 3, 2019

Title 40: Protection of Environment

PART 61—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS

Subpart A—General Provisions

Contents

§61.01 Lists of pollutants and applicability of part 61.
§61.02 Definitions.
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§61.11 Waiver of compliance.
§61.12 Compliance with standards and maintenance requirements.
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§61.15 Modification.
§61.16 Availability of information.
§61.17 State authority.
§61.18 Incorporations by reference.
§61.19 Circumvention.

§61.01 Lists of pollutants and applicability of part 61.

(a) The following list presents the substances that, pursuant to section 112 of the Act, have been designated as hazardous air pollutants. The FEDERAL REGISTER citations and dates refer to the publication in which the listing decision was originally published.

Asbestos (36 FR 5931; Mar. 31, 1971)
 Benzene (42 FR 29332; June 8, 1977)
 Beryllium (36 FR 5931; Mar. 31, 1971)
 Coke Oven Emissions (49 FR 36560; Sept. 18, 1984)
 Inorganic Arsenic (45 FR 37886; June 5, 1980)
 Mercury (36 FR 5931; Mar. 31, 1971)
 Radionuclides (44 FR 76738; Dec. 27, 1979)
 Vinyl Chloride (40 FR 59532; Dec. 24, 1975)

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(b) The following list presents other substances for which a FEDERAL REGISTER notice has been published that included consideration of the serious health effects, including cancer, from ambient air exposure to the substance.

Acrylonitrile (50 FR 24319; June 10, 1985)
 1,3-Butadiene (50 FR 41466; Oct. 10, 1985)
 Cadmium (50 FR 42000; Oct. 16, 1985)
 Carbon Tetrachloride (50 FR 32621; Aug. 13, 1985)
 Chlorinated Benzenes (50 FR 32628; Aug. 13, 1985)
 Chlorofluorocarbon—113 (50 FR 24313; June 10, 1985)
 Chloroform (50 FR 39626; Sept. 27, 1985)
 Chloroprene (50 FR 39632; Sept. 27, 1985)
 Chromium (50 FR 24317; June 10, 1985)
 Copper (52 FR 5496; Feb. 23, 1987)
 Epichlorohydrin (50 FR 24575; June 11, 1985)
 Ethylene Dichloride (50 FR 41994; Oct. 16, 1985)
 Ethylene Oxide (50 FR 40286; Oct. 2, 1985)
 Hexachlorocyclopentadiene (50 FR 40154; Oct. 1, 1985)
 Manganese (50 FR 32627; Aug. 13, 1985)
 Methyl Chloroform (50 FR 24314; June 10, 1985)
 Methylene Chloride (50 FR 42037; Oct. 17, 1985)
 Nickel (51 FR 34135; Sept. 25, 1986)
 Perchloroethylene (50 FR 52800; Dec. 26, 1985)
 Phenol (51 FR 22854; June 23, 1986)
 Polycyclic Organic Matter (49 FR 31680; Aug. 8, 1984)
 Toluene (49 FR 22195; May 25, 1984)
 Trichloroethylene (50 FR 52422; Dec. 23, 1985)
 Vinylidene Chloride (50 FR 32632; Aug. 13, 1985)
 Zinc and Zinc Oxide (52 FR 32597; Aug. 28, 1987)

(c) This part applies to the owner or operator of any stationary source for which a standard is prescribed under this part.

(d) In addition to complying with the provisions of this part, the owner or operator of a stationary source subject to a standard in this part may be required to obtain an operating permit issued to stationary sources by an authorized State air pollution control agency or by the Administrator of the U.S. Environmental Protection Agency (EPA) pursuant to title V of

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the Clean Air Act (Act) as amended November 15, 1990 (42 U.S.C. 7661). For more information about obtaining an operating permit see part 70 of this chapter.

[50 FR 46290, Nov. 7, 1985, as amended at 51 FR 7715, 7719, Mar. 5, 1986; 51 FR 11022, Apr. 1, 1986; 52 FR 37617, Oct. 8, 1987; 59 FR 12429, Mar. 16, 1994]

§61.02 Definitions.

The terms used in this part are defined in the Act or in this section as follows:

Act means the Clean Air Act (42 U.S.C. 7401 *et seq.*).

Administrator means the Administrator of the Environmental Protection Agency or his authorized representative.

Alternative method means any method of sampling and analyzing for an air pollutant which is not a reference method but which has been demonstrated to the Administrator's satisfaction to produce results adequate for the Administrator's determination of compliance.

Approved permit program means a State permit program approved by the Administrator as meeting the requirements of part 70 of this chapter or a Federal permit program established in this chapter pursuant to title V of the Act (42 U.S.C. 7661).

Capital expenditure means an expenditure for a physical or operational change to a stationary source which exceeds the product of the applicable "annual asset guideline repair allowance percentage" specified in the latest edition of Internal Revenue Service (IRS) Publication 534 and the stationary source's basis, as defined by section 1012 of the Internal Revenue Code. However, the total expenditure for a physical or operational change to a stationary source must not be reduced by any "excluded additions" as defined for stationary sources constructed after December 31, 1981, in IRS Publication 534, as would be done for tax purposes. In addition, "annual asset guideline repair allowance" may be used even though it is excluded for tax purposes in IRS Publication 534.

Commenced means, with respect to the definition of "new source" in section 111(a)(2) of the Act, that an owner or operator has undertaken a continuous program of construction or modification or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or modification.

Compliance schedule means the date or dates by which a source or category of sources is required to comply with the standards of this part and with any steps toward such compliance which are set forth in a waiver of compliance under §61.11.

Construction means fabrication, erection, or installation of an affected facility.

Effective date is the date of promulgation in the FEDERAL REGISTER of an applicable standard or other regulation under this part.

Existing source means any stationary source which is not a new source.

Force majeure means, for purposes of §61.13, an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents the owner or operator from complying with the regulatory requirement to conduct performance tests within the specified timeframe despite the affected facility's best efforts to fulfill the obligation. Examples of such events are acts of nature, acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility.

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Issuance of a part 70 permit will occur, if the State is the permitting authority, in accordance with the requirements of part 70 of this chapter and the applicable, approved State permit program. When the EPA is the permitting authority, issuance of a title V permit occurs immediately after the EPA takes final action on the final permit.

Monitoring system means any system, required under the monitoring sections in applicable subparts, used to sample and condition (if applicable), to analyze, and to provide a record of emissions or process parameters.

New source means any stationary source, the construction or modification of which is commenced after the publication in the FEDERAL REGISTER of proposed national emission standards for hazardous air pollutants which will be applicable to such source.

Owner or operator means any person who owns, leases, operates, controls, or supervises a stationary source.

Part 70 permit means any permit issued, renewed, or revised pursuant to part 70 of this chapter.

Permit program means a comprehensive State operating permit system established pursuant to title V of the Act (42 U.S.C. 7661) and regulations codified in part 70 of this chapter and applicable State regulations, or a comprehensive Federal operating permit system established pursuant to title V of the Act and regulations codified in this chapter.

Permitting authority means:

(1) The State air pollution control agency, local agency, other State agency, or other agency authorized by the Administrator to carry out a permit program under part 70 of this chapter; or

(2) The Administrator, in the case of EPA-implemented permit programs under title V of the Act (42 U.S.C. 7661).

Reference method means any method of sampling and analyzing for an air pollutant, as described in appendix B to this part.

Run means the net period of time during which an emission sample is collected. Unless otherwise specified, a run may be either intermittent or continuous within the limits of good engineering practice.

Standard means a national emission standard including a design, equipment, work practice or operational standard for a hazardous air pollutant proposed or promulgated under this part.

Startup means the setting in operation of a stationary source for any purpose.

State means all non-Federal authorities, including local agencies, interstate associations, and State-wide programs, that have delegated authority to implement:

(1) The provisions of this part; and/or

(2) The permit program established under part 70 of this chapter. The term State shall have its conventional meaning where clear from the context.

Stationary source means any building, structure, facility, or installation which emits or may emit any air pollutant which has been designated as hazardous by the Administrator.

Title V permit means any permit issued, renewed, or revised pursuant to Federal or State regulations established to implement title V of the Act (42 U.S.C. 7661). A title V permit issued by a State permitting authority is called a part 70 permit in this part.

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[44 FR 55174, Sept. 25, 1979, as amended at 50 FR 46290, Nov. 7, 1985; 59 FR 12429, Mar. 16, 1994; 72 FR 27442, May 16, 2007]

§61.03 Units and abbreviations.

Used in this part are abbreviations and symbols of units of measure. These are defined as follows:

(a) System International (SI) units of measure:

A = ampere
g = gram
Hz = hertz
J = joule
K = degree Kelvin
kg = kilogram
m = meter
m² = square meter
m³ = cubic meter
mg = milligram = 10⁻³gram
mm = millimeter = 10⁻³meter
Mg = megagram = 10⁶gram
mol = mole
N = newton
ng = nanogram = 10⁻⁹gram
nm = nanometer = 10⁻⁹meter
Pa = pascal
s = second
V = volt
W = watt
Ω = ohm
μg = microgram = 10⁻⁶gram

(b) Other units of measure:

°C = degree Celsius (centigrade)

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cfm = cubic feet per minute
cc = cubic centimeter
Ci = curie
d = day
°F = degree Fahrenheit
ft² = square feet
ft³ = cubic feet
gal = gallon
in = inch
in Hg = inches of mercury
in H₂O = inches of water
l = liter
lb = pound
lpm = liter per minute
min = minute
ml = milliliter = 10⁻³liter
mrem = millirem = 10⁻³ rem
oz = ounces
pCi = picocurie = 10⁻¹² curie
psig = pounds per square inch gage
°R = degree Rankine
μl = microliter = 10⁻⁶liter
v/v = volume per volume
yd² = square yards
yr = year

(c) Chemical nomenclature:

Be = beryllium
Hg = mercury
H₂O = water

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(d) Miscellaneous:

act = actual

avg = average

I.D. = inside diameter

M = molar

N = normal

O.D. = outside diameter

% = percent

std = standard

[42 FR 51574, Sept. 29, 1977, as amended at 54 FR 51704, Dec. 15, 1989]

§61.04 Address.

(a) All requests, reports, applications, submittals, and other communications to the Administrator pursuant to this part shall be submitted in duplicate to the appropriate Regional Office of the U.S. Environmental Protection Agency to the attention of the Director of the Division indicated in the following list of EPA Regional Offices.

Region I (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont) Director, Enforcement and Compliance Assurance Division, U.S. EPA Region 1, 5 Post Office Square—Suite 100 (04-2), Boston, MA 02109-3912, Attn: Air Compliance Clerk.

Region II (New Jersey, New York, Puerto Rico, Virgin Islands), Director, Air and Waste Management Division, U.S. Environmental Protection Agency, Federal Office Building, 26 Federal Plaza (Foley Square), New York, NY 10278.

Region III (Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia), Director, Air Protection Division, Mail Code 3AP00, 1650 Arch Street, Philadelphia, PA 19103-2029.

Region IV (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee), Director, Air, Pesticides and Toxics Management Division, U.S. Environmental Protection Agency, 61 Forsyth St. SW., Suite 9T43, Atlanta, Georgia 30303-8960.

Region V (Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin), Director, Air and Radiation Division, U.S. Environmental Protection Agency, 77 West Jackson Boulevard, Chicago, IL 60604-3590.

Region VI (Arkansas, Louisiana, New Mexico, Oklahoma, Texas); Director, Enforcement and Compliance Assurance Division; U.S. Environmental Protection Agency, 1201 Elm Street, Suite 500, Mail Code 6ECD, Dallas, Texas 75270-2102.

Region VII (Iowa, Kansas, Missouri, Nebraska), Director, Air and Waste Management Division, 11201 Renner Boulevard, Lenexa, Kansas 66219.

Region VIII (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming) Director, Air and Toxics Technical Enforcement Program, Office of Enforcement, Compliance and Environmental Justice, Mail Code 8ENF-AT, 1595 Wynkoop Street, Denver, CO 80202-1129.

Region IX (Arizona, California, Hawaii and Nevada; the territories of American Samoa and Guam; the Commonwealth of the Northern Mariana Islands; the territories of Baker Island, Howland Island, Jarvis Island, Johnston Atoll, Kingman Reef, Midway Atoll, Palmyra Atoll, and Wake Islands; and certain U.S. Government activities in the freely associated

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states of the Republic of the Marshall Islands, the Federated States of Micronesia, and the Republic of Palau), Director, Air Division, U.S. Environmental Protection Agency, 75 Hawthorne Street, San Francisco, CA 94105.

Region X (Alaska, Idaho, Oregon, Washington), Director, Office of Air Quality, U.S. Environmental Protection Agency, 1200 Sixth Avenue (OAQ-107), Seattle, WA 98101.

(b) Section 112(d) of the Act directs the Administrator to delegate to each State, when appropriate, the authority to implement and enforce national emission standards for hazardous air pollutants for stationary sources located in such State. If the authority to implement and enforce a standard under this part has been delegated to a State, all information required to be submitted to EPA under paragraph (a) of this section shall also be submitted to the appropriate State agency (provided, that each specific delegation may exempt sources from a certain Federal or State reporting requirement). The Administrator may permit all or some of the information to be submitted to the appropriate State agency only, instead of to EPA and the State agency. If acceptable to both the Administrator and the owner or operator of a source, notifications and reports may be submitted on electronic media. The appropriate mailing address for those States whose delegation request has been approved is as follows:

(1) [Reserved]

(2) State of Alabama: Alabama Department of Environmental Management, P.O. Box 301463, Montgomery, Alabama 36130-1463.

(3) State of Alaska. (i) Alaska Department of Environmental Conservation (ADEC), 410 Willoughby Avenue, Suite 303, Juneau, AK 99801-1795, <http://www.state.ak.us/local/akpages/ENV.CONSERV/home.htm>.

(ii) See paragraph (c)(10) of this section for a table indicating the delegation status of National Emission Standards for Hazardous Air Pollutants for Region 10—Alaska, Idaho, Oregon, and Washington.

(4) Arizona:

Arizona Department of Environmental Quality, 1110 West Washington Street, Phoenix, AZ 85007.

Maricopa County Air Quality Department, 1001 North Central Avenue, Suite 900, Phoenix, AZ 85004.

Pima County Department of Environmental Quality, 33 North Stone Avenue, Suite 700, Tucson, AZ 85701.

Pinal County Air Quality Control District, 31 North Pinal Street, Building F, Florence, AZ 85132.

NOTE: For tables listing the delegation status of agencies in Region IX, see paragraph (c)(9) of this section.

(5) State of Arkansas: Chief, Division of Air Pollution Control, Arkansas Department of Pollution Control and Ecology, 8001 National Drive, P.O. Box 9583, Little Rock, AR 72209.

(6) California:

Amador County Air Pollution Control District, 12200-B Airport Road, Jackson, CA 95642.

Antelope Valley Air Quality Management District, 43301 Division Street, Suite 206, Lancaster, CA 93535.

Bay Area Air Quality Management District, 939 Ellis Street, San Francisco, CA 94109.

Butte County Air Quality Management District, 2525 Dominic Drive, Suite J, Chico, CA 95928.

Calaveras County Air Pollution Control District, 891 Mountain Ranch Road, San Andreas, CA 95249.

Colusa County Air Pollution Control District, 100 Sunrise Blvd., Suite A-3, Colusa, CA 95932-3246.

El Dorado County Air Quality Management District, 2850 Fairlane Court, Bldg. C, Placerville, CA 95667-4100.

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Eastern Kern Air Pollution Control District, 2700 "M" Street, Suite 302, Bakersfield, CA 93301-2370.

Feather River Air Quality Management District, 1007 Live Oak Blvd., Suite B-3, Yuba City, CA 95991.

Glenn County Air Pollution Control District, 720 N. Colusa Street, P.O. Box 351, Willows, CA 95988-0351.

Great Basin Unified Air Pollution Control District, 157 Short Street, Suite 6, Bishop, CA 93514-3537.

Imperial County Air Pollution Control District, 150 South Ninth Street, El Centro, CA 92243-2801.

Lake County Air Quality Management District, 885 Lakeport Blvd., Lakeport, CA 95453-5405.

Lassen County Air Pollution Control District, 707 Nevada Street, Suite 1, Susanville, CA 96130.

Mariposa County Air Pollution Control District, P.O. Box 5, Mariposa, CA 95338.

Mendocino County Air Quality Management District, 306 E. Gobbi Street, Ukiah, CA 95482-5511.

Modoc County Air Pollution Control District, 619 North Main Street, Alturas, CA 96101.

Mojave Desert Air Quality Management District, 14306 Park Avenue, Victorville, CA 92392-2310.

Monterey Bay Unified Air Pollution Control District, 24580 Silver Cloud Court, Monterey, CA 93940.

North Coast Unified Air Quality Management District, 2300 Myrtle Avenue, Eureka, CA 95501-3327.

Northern Sierra Air Quality Management District, 200 Litton Drive, Suite 320, P.O. Box 2509, Grass Valley, CA 95945-2509.

Northern Sonoma County Air Pollution Control District, 150 Matheson Street, Healdsburg, CA 95448-4908.

Placer County Air Pollution Control District, 3091 County Center Drive, Suite 240, Auburn, CA 95603.

Sacramento Metropolitan Air Quality Management District, 777 12th Street, Third Floor, Sacramento, CA 95814-1908.

San Diego County Air Pollution Control District, 10124 Old Grove Road, San Diego, CA 92131-1649.

San Joaquin Valley Air Pollution Control District, 1990 E. Gettysburg, Fresno, CA 93726.

San Luis Obispo County Air Pollution Control District, 3433 Roberto Court, San Luis Obispo, CA 93401-7126.

Santa Barbara County Air Pollution Control District, 260 North San Antonio Road, Suite A, Santa Barbara, CA 93110-1315.

Shasta County Air Quality Management District, 1855 Placer Street, Suite 101, Redding, CA 96001-1759.

Siskiyou County Air Pollution Control District, 525 So. Foothill Drive, Yreka, CA 96097-3036.

South Coast Air Quality Management District, 21865 Copley Drive, Diamond Bar, CA 91765-4182.

Tehama County Air Pollution Control District, P.O. Box 8069 (1750 Walnut Street), Red Bluff, CA 96080-0038.

Tuolumne County Air Pollution Control District, 22365 Airport, Columbia, CA 95310.

Ventura County Air Pollution Control District, 669 County Square Drive, 2nd Floor, Ventura, CA 93003-5417.

Yolo-Solano Air Quality Management District, 1947 Galileo Court, Suite 103, Davis, CA 95616-4882.

NOTE: For tables listing the delegation status of agencies in Region IX, see paragraph (c)(9) of this section.

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(7) State of Colorado, Air Pollution Control Division, Department of Public Health and Environment, 4300 Cherry Creek Drive South, Denver, CO 80246-1530.

NOTE: For a table listing Region VIII's NESHAP delegation status, see paragraph (c) of this section.

- (8) State of Connecticut: Compliance Analysis and Coordination Unit, Bureau of Air Management, Department of Energy and Environmental Protection, 79 Elm Street, 5th Floor, Hartford, CT 06106-5127.
- (9) State of Delaware, Department of Natural Resources & Environmental Control, 89 Kings Highway, P.O. Box 1401, Dover, Delaware 19903.
- (10) District of Columbia, Department of Public Health, Air Quality Division, 51 N Street, NE., Washington, DC 20002.
- (11) State of Florida: Florida Department of Environmental Protection, Division of Air Resources Management, 2600 Blair Stone Road, MS 5500, Tallahassee, Florida 32399-2400.
- (12) State of Georgia: Georgia Department of Natural Resources, Environmental Protection Division, Air Protection Branch, 4244 International Parkway, Suite 120, Atlanta, Georgia 30354.

(13) Hawaii:

Clean Air Branch, Hawaii Department of Health, 919 Ala Moana Blvd., Suite 203, Honolulu, HI 96814.

NOTE: For tables listing the delegation status of agencies in Region IX, see paragraph (c)(9) of this section.

- (14) State of Idaho: (i) Idaho Department of Environmental Conservation (TDEQ), 1410 N. Hilton, Boise, ID 83706, <http://www2.state.id.us/daq/>.
- (ii) See paragraph (c)(10) of this section for a table indicating the delegation status of National Emission Standards for Hazardous Air Pollutants for Region 10—Alaska, Idaho, Oregon, and Washington.
- (15) State of Illinois: Illinois Environmental Protection Agency, 1021 North Grand Avenue East, Springfield, Illinois 62794.
- (16) State of Indiana: Indiana Department of Environmental Management, Office of Air Quality, 100 North Senate Avenue, Indianapolis, Indiana 46204.
- (17) State of Iowa: Iowa Department of Natural Resources, Environmental Protection Division, Air Quality Bureau, 7900 Hickman Road, Suite 1, Urbandale, IA 50322.
- (18) State of Kansas: Kansas Department of Health and Environment, Bureau of Air and Radiation, 1000 S.W. Jackson, Suite 310, Topeka, KS 66612-1366.
- (19) Commonwealth of Kentucky: Kentucky Department for Environmental Protection, Division of Air Quality, 300 Sower Boulevard, 2nd Floor, Frankfort, Kentucky 40601 or local agency, Louisville Metro Air Pollution Control District, 701 W. Ormsby Ave. Suite 303, Louisville, Kentucky 40203.
- (20) State of Louisiana: Louisiana Department of Environmental Quality, P.O. Box 4301, Baton Rouge, Louisiana 70821-4301.
- (21) State of Maine: Maine Department of Environmental Protection, Bureau of Air Quality, 17 State House Station, Augusta, ME 04333-0017.
- (22) State of Maryland, Department of the Environment, 1800 Washington Boulevard, Suite 705, Baltimore, Maryland 21230.
- (23) Commonwealth of Massachusetts, Massachusetts Department of Environmental Protection, Division of Air and Climate Programs, One Winter Street, Boston, MA 02108.

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- (24) State of Michigan: Michigan Department of Natural Resources and Environment Quality, Air Quality Division, P.O. 30028, Lansing, Michigan 48909.
- (25) State of Minnesota: Minnesota Pollution Control Agency, Division of Air Quality, 520 Lafayette Road North, St. Paul, Minnesota 55155.
- (26) State of Mississippi: Hand Deliver or Courier: Mississippi Department of Environmental Quality, Office of Pollution Control, Air Division, 515 East Amite Street, Jackson, Mississippi 39201, Mailing Address: Mississippi Department of Environmental Quality, Office of Pollution Control, Air Division, P.O. Box 2261, Jackson, Mississippi 39225.
- (27) State of Missouri: Missouri Department of Natural Resources, Division of Environmental Quality, P.O. Box 176, Jefferson City, MO 65102.
- (28) State of Montana, Department of Environmental Quality, 1520 E. 6th Ave., PO Box 200901, Helena, MT 59620-0901.
- NOTE: For a table listing Region VIII's NESHAP delegation status, see paragraph (c) of this section.
- (29) State of Nebraska, Nebraska Department of Environmental Control, P.O. Box 94877, State House Station, Lincoln, NE 68509.
- Lincoln-Lancaster County Health Department, Division of Environmental Health, 2200 St. Marys Avenue, Lincoln, NE 68502.
- (30) Nevada:
- Nevada Division of Environmental Protection, 901 South Stewart Street, Suite 4001, Carson City, NV 89701-5249.
- Clark County Department of Air Quality and Environmental Management, 500 S. Grand Central Parkway, 1st Floor, P.O. Box 555210, Las Vegas, NV 89155-5210.
- Washoe County Health District, Air Quality Management Division, 1001 E. 9th Street, Building A, Suite 115A, Reno, NV 89520.
- NOTE: For tables listing the delegation status of agencies in Region IX, see paragraph (c)(9) of this section.
- (31) State of New Hampshire, New Hampshire Department of Environmental Services, Air Resources Division, 29 Hazen Drive, P.O. Box 95, Concord, NH 03302-0095.
- (32) State of New Jersey: New Jersey Department of Environmental Protection, John Filch Plaza, P.O. Box 2807, Trenton, NJ 08625.
- (33) *State of New Mexico*: New Mexico Environment Department, P.O. Box 5469, Santa Fe, New Mexico 87502-5469. For a list of delegated standards for New Mexico (excluding Bernalillo County and Indian country), see paragraph (c)(6) of this section.
- (34) New York: New York State Department of Environmental Conservation, 50 Wolf Road, Albany, NY 12233, attention: Division of Air Resources.
- (35) State of North Carolina: North Carolina Department of Environmental Quality, Division of Air Quality, 1641 Mail Service Center, Raleigh, North Carolina 27699-1641 or local agencies, Forsyth County Office of Environmental Assistance and Protection, 201 North Chestnut Street, Winston-Salem, North Carolina 27101-4120; Mecklenburg County Land Use and Environmental Services Agency, Air Quality, 2145 Suttle Avenue, Charlotte, North Carolina 28208; Western North Carolina Regional Air Quality Agency, 125 S. Lexington Ave., Suite 101, Asheville, North Carolina 28801-3661.

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- (36) State of North Dakota, North Dakota Department of Environmental Quality, 918 East Divide Avenue, Bismarck, ND 58501-1947.

NOTE: For a table listing Region VIII's NESHAP delegation status, see paragraph (c) of this section.

- (37) State of Ohio:
- (i) Medina, Summit and Portage Counties; Director, Akron Regional Air Quality Management District, 146 South High Street, Room 904, Akron, OH 44308.
- (ii) Stark County; Director, Canton City Health Department, Air Pollution Control Division, 420 Market Avenue North, Canton, Ohio 44702-1544.
- (iii) Butler, Clermont, Hamilton, and Warren Counties; Director, Hamilton County Department of Environmental Services, 250 William Howard Taft Road, Cincinnati, Ohio 45219-2660.
- (iv) Cuyahoga County; Commissioner, Cleveland Department of Public Health, Division of Air Quality, 75 Erieview Plaza 2nd Floor, Cleveland, Ohio 44114.
- (v) Clark, Darke, Greene, Miami, Montgomery, and Preble Counties; Director, Regional Air Pollution Control Agency, 117 South Main Street, Dayton, Ohio 45422-1280.
- (vi) Lucas County and the City of Rossford (in Wood County); Director, City of Toledo, Division of Environmental Services, 348 South Erie Street, Toledo, OH 43604.
- (vii) Adams, Brown, Lawrence, and Scioto Counties; Portsmouth Local Air Agency, 605 Washington Street, Third Floor, Portsmouth, OH 45662.
- (viii) Allen, Ashland, Auglaize, Crawford, Defiance, Erie, Fulton, Hancock, Hardin, Henry, Huron, Marion, Mercer, Ottawa, Paulding, Putnam, Richland, Sandusky, Seneca, Van Wert Williams, Wood (Except City of Rossford), and Wyandot Counties; Ohio Environmental Protection Agency, Northwest District Office, Air Pollution Control, 347 North Dunbridge Road, Bowling Green, Ohio 43402.
- (ix) Ashtabula, Carroll, Columbiana, Holmes, Lorain, and Wayne Counties; Ohio Environmental Protection Agency, Northeast District Office, Air Pollution Unit, 2110 East Aurora Road, Twinsburg, OH 44087.
- (x) Athens, Belmont, Coshocot, Gallia, Guemsey, Harrison, Hocking, Jackson, Jefferson, Meigs, Monroe, Morgan, Muskingum, Noble, Perry, Pike, Ross, Tuscarawas, Vinton, and Washington Counties; Ohio Environmental Protection Agency, Southeast District Office, Air Pollution Unit, 2195 Front Street, Logan, OH 43138.
- (xi) Champaign, Clinton, Highland, Logan, and Shelby Counties; Ohio Environmental Protection Agency, Southwest District Office, Air Pollution Unit, 401 East Fifth Street, Dayton, Ohio 45402-2911.
- (xii) Delaware, Fairfield, Fayette, Franklin, Knox, Licking, Madison, Morrow, Pickaway, and Union Counties; Ohio Environmental Protection Agency, Central District Office, Air Pollution control, 50 West Town Street, Suite 700, Columbus, Ohio 43215.
- (xiii) Geauga and Lake Counties; Lake County General Health District, Air Pollution Control, 33 Mill Street, Painesville, OH 44077.
- (xiv) Mahoning and Trumbull Counties; Mahoning-Trumbull Air Pollution Control Agency, 345 Oak Hill Avenue, Suite 200, Youngstown, OH 44502.
- (38) State of Oklahoma, Oklahoma Department of Environmental Quality, Air Quality Division, P.O. Box 1677, Oklahoma City, OK 73101-1677. For a list of delegated standards for Oklahoma see paragraph (c)(6) of this section.

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- (39) State of Oregon. (i) Oregon Department of Environmental Quality (ODEQ), 811 SW Sixth Ave, Portland, OR 97204-1390, <http://www.deq.state.or.us/>.
- (ii) Lane Regional Air Pollution Authority (LRAPA), 1010 Main Street, Springfield, Oregon 97477, <http://www.lrapa.org>.
- (iii) See paragraph (c)(10) of this section for a table indicating the delegation status of National Emission Standards for Hazardous Air Pollutants for Region 10—Alaska, Idaho, Oregon, and Washington.
- (iv)-(vii) [Reserved]
- (viii) Lane Regional Air Pollution Authority, 225 North Fifth, suite 501, Springfield, OR 97477.
- (40)(i) City of Philadelphia, Department of Public Health, Air Management Services, 321 University Avenue, Philadelphia, Pennsylvania 19104.
- (ii) Commonwealth of Pennsylvania, Department of Environmental Protection, Bureau of Air Quality Control, P.O. Box 8468, 400 Market Street, Harrisburg, Pennsylvania 17105.
- (iii) Allegheny County Health Department, Bureau of Environmental Quality, Division of Air Quality, 301 39th Street, Pittsburgh, Pennsylvania 15201.
- (41) State of Rhode Island, Rhode Island Department of Environmental Management, Office of Air Resources, 235 Promenade Street, Providence, RI 02908.
- (42) State of South Carolina: South Carolina Department of Health and Environmental Control, 2600 Bull St., Columbia, South Carolina 29201.
- (43) State of South Dakota, Department of Water and Natural Resources, Office of Air Quality and Solid Waste, Joe Foss Building, 523 East Capitol, Pierre, SD 57501-3181.

NOTE: For a table listing Region VIII's NESHAPs delegation status, see paragraph (c) of this section.

- (44) State of Tennessee: Tennessee Department of Environment and Conservation, Division of Air Pollution Control, William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 15th Floor, Nashville, Tennessee 37243, or local agencies, Knox County Air Quality Management—Department of Public Health, 140 Dameron Avenue, Knoxville, Tennessee 37917; Metro Public Health Department, Pollution Control Division, 2500 Charlotte Ave., Nashville, Tennessee 37209; Chattanooga-Hamilton County Air Pollution Control Bureau, 6125 Preservation Drive, Chattanooga, Tennessee 37416; Shelby County Health Department, Pollution Control Section, 814 Jefferson Avenue, Memphis, Tennessee 38105.
- (45) State of Texas, Texas Air Control Board, 6330 Highway 290 East, Austin, TX 78723.
- (46) State of Utah, Division of Air Quality, Department of Environmental Quality, P.O. Box 144820, Salt Lake City, UT 84114-4820.

NOTE: For a table listing Region VIII's NESHAP delegation status, see paragraph (c) of this section.

- (47) State of Vermont, Agency of Natural Resources, Department of Environmental Conservation, Air Quality and Climate Division, Davis 2, One National Life Drive, Montpelier, VT 05620-3802.
- (48) Commonwealth of Virginia, Department of Environmental Quality, 629 East Main Street, Richmond, Virginia 23219.
- (49) State of Washington. (f) Washington State Department of Ecology (Ecology), P.O. Box 47600, Olympia, WA 98504-7600, <http://www.ecy.wa.gov/>.

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- (ii) Benton Clean Air Authority (BCAA), 650 George Washington Way, Richland, WA 99352-4289, <http://www.hcaa.net/>.
- (iii) Northwest Air Pollution Control Authority (NWAPA), 1600 South Second St., Mount Vernon, WA 98273-5202, <http://www.nwair.org/>.
- (iv) Olympic Air Pollution Control Authority (OAPCA), 909 Sleater-Kinney Road S.E., Suite 1, Lacey, WA 98503-1128, <http://www.oapea.org/>.
- (v) Puget Sound Clean Air Agency (PSCAA), 110 Union Street, Suite 500, Seattle, WA 98101-2038, <http://www.pscleanair.org/>.
- (vi) Spokane County Air Pollution Control Authority (SCAPCA), West 1101 College, Suite 403, Spokane, WA 9920, <http://www.scapca.org/>.
- (vii) Southwest Clean Air Agency (SWCAA), 1308 NE 134th St., Vancouver, WA 98685-2747, <http://www.swcleanair.org/>.
- (viii) Yakima Regional Clean Air Agency (YRCAA), Larson Building, Suite 1016, 6 South 2nd St., Yakima WA 98901, <http://co.yakima.wa.us/cleanair/default.htm>.
- (ix) See paragraph (c)(10) of this section for a table indicating the delegation status of National Emission Standards for Hazardous Air Pollutants for Region 10—Alaska, Idaho, Oregon, and Washington.

- (50) State of West Virginia, Department of Environmental Protection, Division of Air Quality, 601 57th Street, SE., Charleston, West Virginia 25304.
- (51) State of Wisconsin: Wisconsin Department of Natural Resources, 101 South Webster St., P.O. Box 7921, Madison, Wisconsin 53707-7921. 101 South Webster St., P.O. Box 7921, Madison, Wisconsin 53707-7921.
- (52) State of Wyoming, Air Quality Division, Department of Environmental Quality, 122 W. 25th St., Cheyenne, WY 82002.
- (53) Territory of Guam: Guam Environmental Protection Agency, P.O. Box 22439 GMF, Barrigada, Guam 96921.

NOTE: For tables listing the delegation status of agencies in Region IX, see paragraph (c)(9) of this section.

- (54) Commonwealth of Puerto Rico: Commonwealth of Puerto Rico Environmental Quality Board, P.O. Box 11785, Santurce, PR 00910.
- (55) U.S. Virgin Islands: U.S. Virgin Islands Department of Conservation and Cultural Affairs, P.O. Box 578, Charlotte Amalie, St. Thomas, U.S. Virgin Islands 00801.
- (56) American Samoa: American Samoa Environmental Protection Agency, P.O. Box PPA, Pago Pago, American Samoa 96799.

NOTE: For tables listing the delegation status of agencies in Region IX, see paragraph (d) of this section.

- (57) Commonwealth of the Northern Mariana Islands: CNMI Division of Environmental Quality, P.O. Box 501304, Saipan, MP 96950.

NOTE: For tables listing the delegation status of agencies in Region IX, see paragraph (d) of this section.

(c) The following tables list, by Region, the specific Part 61, National Emission Standards for Hazardous Air Pollutants that have been delegated to state and local agencies.

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(1)(i) Inactive waste disposal sites not operated after July 9, 1981 within the state of New Hampshire must comply with the New Hampshire Regulations at Env-Sw 2100: Management and Control of Asbestos Disposal Sites Not Operated after July 9, 1981, effective February 16, 2010 (incorporated by reference, see §61.18).

(ii) The remainder of the sources subject to the asbestos provisions in subpart M of this part, except for those listed under paragraph (c)(1)(i) of this section, must comply with the New Hampshire Code of Administrative Rules: Chapter Env-A 1800, Asbestos Management and Control, effective as of May 5, 2017 as incorporated by reference, see §61.18.

(2)-(5) [Reserved]

(6) The following lists the specific Part 61 standards that have been delegated unchanged to the air pollution control agencies in Region 6.

(i) [Reserved]

(ii) *Louisiana.* The Louisiana Department of Environmental Quality (LDEQ) has been delegated the following part 61 standards promulgated by EPA, as amended in the FEDERAL REGISTER through July 1, 2013. The (X) symbol is used to indicate each subpart that has been delegated.

DELEGATION STATUS FOR PART 61 STANDARDS—STATE OF LOUISIANA

[Excluding Indian Country]

Subpart	Source category	LDEQ ¹
A	General Provisions	X
B	Radon Emissions From Underground Uranium Mines	
C	Beryllium	X
D	Beryllium Rocket Motor Firing	X
E	Mercury	X
F	Vinyl Chloride	X
G	(Reserved)	
H	Emissions of Radionuclides Other Than Radon From Department of Energy Facilities	
I	Radionuclide Emissions From Federal Facilities Other Than Nuclear Regulatory Commission Licensees and Not Covered by Subpart H	
J	Equipment Leaks (Fugitive Emission Sources) of Benzene	X
K	Radionuclide Emissions From Elemental Phosphorus Plants	
L	Benzene Emissions From Coke By-Product Recovery Plants	X
M	Asbestos	X
N	Inorganic Arsenic Emissions From Glass Manufacturing Plants	X
O	Inorganic Arsenic Emissions From Primary Copper Smelters	X
P	Inorganic Arsenic Emissions From Arsenic Trioxide and Metallic Arsenic Production Facilities	X
Q	Radon Emissions From Department of Energy Facilities	
R	Radon Emissions From Phosphogypsum Stacks	
S	(Reserved)	
T	Radon Emissions From the Disposal of Uranium Mill Tailings	
U	(Reserved)	

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V	Equipment Leaks (Fugitives Emission Sources)	X
W	Radon Emissions From Operating Mill Tailings	
X	(Reserved)	
Y	Benzene Emissions From Benzene Storage Vessels	X
Z-AA	(Reserved)	
BB	Benzene Emissions From Benzene Transfer Operations	X
CC-EE	(Reserved)	
FF	Benzene Waste Operations	X

¹Program delegated to Louisiana Department of Environmental Quality (LDEQ).

(iii) *New Mexico.* The New Mexico Environment Department (NMED) has been delegated the following part 61 standards promulgated by the EPA, as amended in the FEDERAL REGISTER through January 15, 2017. The (X) symbol is used to indicate each subpart that has been delegated. The delegations are subject to all of the conditions and limitations set forth in Federal law and regulations.

DELEGATION STATUS FOR NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (PART 61 STANDARDS) FOR NEW MEXICO

[Excluding Bernalillo County and Indian Country]

Subpart	Source category	NMED ¹
A	General Provisions	X
B	Radon Emissions From Underground Uranium Mines	
C	Beryllium	X
D	Beryllium Rocket Motor Firing	X
E	Mercury	X
F	Vinyl Chloride	X
G	(Reserved)	
H	Emissions of Radionuclides Other Than Radon From Department of Energy Facilities	
I	Radionuclide Emissions From Federal Facilities Other Than Nuclear Regulatory Commission Licensees and Not Covered by Subpart H	
J	Equipment Leaks (Fugitive Emission Sources) of Benzene	X
K	Radionuclide Emissions From Elemental Phosphorus Plants	
L	Benzene Emissions From Coke By-Product Recovery Plants	X
M	Asbestos	X
N	Inorganic Arsenic Emissions From Glass Manufacturing Plants	X
O	Inorganic Arsenic Emissions From Primary Copper Smelters	X
P	Inorganic Arsenic Emissions From Arsenic Trioxide and Metallic Arsenic Production Facilities	X
Q	Radon Emissions From Department of Energy Facilities	
R	Radon Emissions From Phosphogypsum Stacks	
S	(Reserved)	
T	Radon Emissions From the Disposal of Uranium Mill Tailings	
U	(Reserved)	

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V	Equipment Leaks (Fugitives Emission Sources)	X
W	Radon Emissions From Operating Mill Tailings	
X	(Reserved)	
Y	Benzene Emissions From Benzene Storage Vessels	X
Z-AA	(Reserved)	
BB	Benzene Emissions From Benzene Transfer Operations	X
CC-EE	(Reserved)	
FF	Benzene Waste Operations	X

¹Program delegated to New Mexico Environment Department (NMED).

(iv) *Oklahoma.* The Oklahoma Department of Environmental Quality (ODEQ) has been delegated the following part 61 standards promulgated by EPA, as amended in the FEDERAL REGISTER through September 1, 2016. The (X) symbol is used to indicate each subpart that has been delegated.

DELEGATION STATUS FOR NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (PART 61 STANDARDS) FOR OKLAHOMA

[Excluding Indian Country]

Subpart	Source category	ODEQ ¹
A	General Provisions	X
B	Radon Emissions From Underground Uranium Mines	
C	Beryllium	X
D	Beryllium Rocket Motor Firing	X
E	Mercury	X
F	Vinyl Chloride	X
G	(Reserved)	
H	Emissions of Radionuclides Other Than Radon From Department of Energy Facilities	
I	Radionuclide Emissions From Federal Facilities Other Than Nuclear Regulatory Commission Licensees and Not Covered by Subpart H	
J	Equipment Leaks (Fugitive Emission Sources) of Benzene	X
K	Radionuclide Emissions From Elemental Phosphorus Plants	
L	Benzene Emissions From Coke By-Product Recovery Plants	X
M	Asbestos	X
N	Inorganic Arsenic Emissions From Glass Manufacturing Plants	X
O	Inorganic Arsenic Emissions From Primary Copper Smelters	X
P	Inorganic Arsenic Emissions From Arsenic Trioxide and Metallic Arsenic Production Facilities	X
Q	Radon Emissions From Department of Energy Facilities	
R	Radon Emissions From Phosphogypsum Stacks	
S	(Reserved)	
T	Radon Emissions From the Disposal of Uranium Mill Tailings	
U	(Reserved)	
V	Equipment Leaks (Fugitives Emission Sources)	X

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W	Radon Emissions From Operating Mill Tailings	
X	(Reserved)	
Y	Benzene Emissions From Benzene Storage Vessels	X
Z-AA	(Reserved)	
BB	Benzene Emissions From Benzene Transfer Operations	X
CC-EE	(Reserved)	
FF	Benzene Waste Operations	X

¹Program delegated to Oklahoma Department of Environmental Quality (ODEQ).

(v) [Reserved]

(vi) *Albuquerque-Bernalillo County, New Mexico.* The Albuquerque-Bernalillo County Air Quality Control Board (ABCAQCB) has been delegated the following part 61 standards promulgated by EPA, as amended in the FEDERAL REGISTER through September 13, 2013. The (X) symbol is used to indicate each subpart that has been delegated.

DELEGATION STATUS FOR NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (PART 61 STANDARDS) FOR ALBUQUERQUE-BERNALILLO COUNTY AIR QUALITY CONTROL BOARD

[Excluding Indian Country]¹

Subpart	Source category	ABCAQCB
A	General Provisions	X
B	Radon Emissions From Underground Uranium Mines	
C	Beryllium	X
D	Beryllium Rocket Motor Firing	X
E	Mercury	X
F	Vinyl Chloride	X
G	(Reserved)	
H	Emissions of Radionuclides Other Than Radon From Department of Energy Facilities	
I	Radionuclide Emissions From Federal Facilities Other Than Nuclear Regulatory Commission Licensees and Not Covered by Subpart H	
J	Equipment Leaks (Fugitive Emission Sources) of Benzene	X
K	Radionuclide Emissions From Elemental Phosphorus Plants	
L	Benzene Emissions From Coke By-Product Recovery Plants	X
M	Asbestos	X
N	Inorganic Arsenic Emissions From Glass Manufacturing Plants	X
O	Inorganic Arsenic Emissions From Primary Copper Smelters	X
P	Inorganic Arsenic Emissions From Arsenic Trioxide and Metallic Arsenic Production Facilities	X
Q	Radon Emissions From Department of Energy Facilities	
R	Radon Emissions From Phosphogypsum Stacks	
S	(Reserved)	
T	Radon Emissions From the Disposal of Uranium Mill Tailings	
U	(Reserved)	

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V	Equipment Leaks (Fugitives Emission Sources)	X
W	Radon Emissions From Operating Mill Tailings	
X	(Reserved)	
Y	Benzene Emissions From Benzene Storage Vessels	X
Z-AA	(Reserved)	
BB	Benzene Emissions From Benzene Transfer Operations	X
CC-BE	(Reserved)	
FF	Benzene Waste Operations	X

¹Program delegated to Albuquerque-Bernalillo County Air Quality Control Board (ABCAQCB).

(7) [Reserved]

(8) The most current delegation status table for National Emissions Standards for Hazardous Air Pollutants for Region VIII can be found online at <http://www.epa.gov/region8/air-program>. The following is a table indicating the delegation status of National Emissions Standards for Hazardous Air Pollutants in Region VIII. The recodification and delegation for North Dakota's August 6, 2018 submittal is effective as of April 30, 2019, as detailed in EPA's delegation letter of February 26, 2019.

REGION VIII—DELEGATION STATUS OF NATIONAL EMISSIONS STANDARDS FOR HAZARDOUS AIR POLLUTANTS¹

Subpart	CO	MT	ND	SD	UT ²	WY
A General Provisions	*	*	*	*	*	*
B Radon Emissions from Underground Uranium Mines					*	
C Beryllium	*	*			*	
D Beryllium Rocket Motor Firing	*	*			*	
E Mercury	*	*			*	
F Vinyl Chloride	*	*			*	
H Emissions of Radionuclides other than Radon from Department of Energy Facilities.						
I Radionuclide Emissions from Facilities Licensed by the Nuclear Regulatory Commission and Federal Facilities not covered by Subpart H.						
J Equipment Leaks (Fugitive Emission Sources) of Benzene	*	*	*		*	
K Radionuclide Emissions from Elemental Phosphorus Plants.						
L Benzene Emissions from Coke By-Product Recovery Plants		*			*	
M Asbestos	*	*	*	*	*	* ³
N Inorganic Arsenic Emissions from Glass Manufacturing Plants		*			*	
O Inorganic Arsenic Emissions from Primary Copper Smelters		*			*	
P Inorganic Arsenic Emissions from Arsenic Trioxide and Metallic Arsenic Production Facilities		*			*	
Q Radon Emissions from Department of Energy Facilities					*	
R Radon Emission from Phosphogypsum Stacks					*	
T Radon Emissions from the Disposal of Uranium Mill Tailings					*	
V Equipment Leaks (Fugitive Emission Sources)		*	*		*	
W Radon Emissions from Operating Mill Tailings					*	

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Y Benzene Emissions from Benzene Storage Vessels	*			*
BB Benzene Waste Operations	*			*
FF Benzene Waste Operations	*	*		*

*Indicates approval of delegation of subpart to state.

¹Specific authorities which may not be delegated include, but are not limited to §§61.04(b) and (c), 61.05(c), 61.11, 61.12(d), 61.13(h)(1)(ii), 61.14(d), 61.14(g)(1)(ii), 61.16, 61.112(c), 61.164(a)(2) and (3), 61.172(b)(2)(ii)(B) and (C), 61.174(a)(2) and (3), 61.242-1(c)(2), 61.244, and all authorities listed as not delegable in each individual subpart delegated to the state.

²Indicates approval of National Emissions Standards for Hazardous Air Pollutants as part of the State Implementation Plan (SIP) with the exception of the radionuclide NESHAP subparts B, Q, R, T and W which were approved through section 112(l) of the Clean Air Act.

³Delegation only for asbestos demolition, renovation, spraying, manufacturing, and fabricating operations, insulating materials, waste disposal for demolition, renovation, spraying, manufacturing and fabricating operations, inactive waste disposal sites for manufacturing and fabricating operations, and operations that convert asbestos-containing waste material into nonasbestos (asbestos-free) material.

(9) The following tables list the specific Part 61 standards that have been delegated unchanged to the air pollution control agencies in Region IX. The (X) symbol is used to indicate each standard that has been delegated. The following provisions of this subpart are not delegated: §§61.04(b), 61.04(c), 61.05(c), 61.11, 61.12(d), 61.13(h)(1)(ii), 61.14(d), 61.14(g)(1)(ii), and 61.16.

(i) Arizona. The following table identifies delegations for Arizona:

DELEGATION STATUS FOR NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR ARIZONA

Subpart	Air pollution control agency			
	Arizona DEQ	Maricopa County	Pima County	Pinal County
A General Provisions	X	X	X	X
B Radon Emissions From Underground Uranium Mines				
C Beryllium	X	X	X	X
D Beryllium Rocket Motor Firing	X	X	X	X
E Mercury	X	X	X	X
F Vinyl Chloride	X	X	X	X
G (Reserved)				
H Emissions of Radionuclides Other Than Radon From Department of Energy Facilities				
I Radionuclide Emissions From Federal Facilities Other Than Nuclear Regulatory Commission Licensees and Not Covered by Subpart H				
J Equipment Leaks (Fugitive Emission Sources) of Benzene	X	X	X	X
K Radionuclide Emissions From Elemental Phosphorus Plants				
L Benzene Emissions from Coke By-Product Recovery Plants	X	X	X	X
M Asbestos	X	X	X	X

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N	Inorganic Arsenic Emissions From Glass Manufacturing Plants	X	X	X	
O	Inorganic Arsenic Emissions From Primary Copper Smelters	X	X	X	
P	Inorganic Arsenic Emissions From Arsenic Trioxide and Metallic Arsenic Production Facilities	X	X		
Q	Radon Emissions From Department of Energy Facilities				
R	Radon Emissions From Phosphogypsum Stacks				
S	(Reserved)				
T	Radon Emissions From the Disposal of Uranium Mill Tailings				
U	(Reserved)				
V	Equipment Leaks (Fugitive Emission Sources)	X	X	X	X
W	Radon Emissions From Operating Mill Tailings				
X	(Reserved)				
Y	Benzene Emissions From Benzene Storage Vessels	X	X	X	X
Z-AA	(Reserved)				
BB	Benzene Emissions From Benzene Transfer Operations	X	X	X	X
CC-EE	(Reserved)				
FF	Benzene Waste Operations	X	X	X	X

(ii) California. The following tables identify delegations for California:

(A) Delegations for Amador County Air Pollution Control District, Antelope Valley Air Quality Management District, Bay Area Air Quality Management District, and Butte County Air Quality Management District are shown in the following table:

DELEGATION STATUS FOR NATIONAL EMISSIONS STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR AMADOR COUNTY APCD, ANTELOPE VALLEY AQMD, BAY AREA AQMD, AND BUTTE COUNTY AQMD

	Subpart	Air pollution control agency			
		Amador County APCD	Antelope Valley AQMD	Bay Area AQMD	Butte County AQMD
A	General Provisions		X	X	
B	Radon Emissions From Underground Uranium Mines				
C	Beryllium		X	X	
D	Beryllium Rocket Motor Firing		X	X	
E	Mercury		X	X	
F	Vinyl Chloride		X	X	
G	(Reserved)				
H	Emissions of Radionuclides Other Than Radon From Department of Energy Facilities				
I	Radionuclide Emissions From Federal Facilities Other Than Nuclear Regulatory Commission Licensees and Not Covered by Subpart H				

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J	Equipment Leaks (Fugitive Emission Sources) of Benzene		X		
K	Radionuclide Emissions From Elemental Phosphorus Plants				
L	Benzene Emissions from Coke By-Product Recovery Plants		X	X	
M	Asbestos		X	X	
N	Inorganic Arsenic Emissions From Glass Manufacturing Plants		X		
O	Inorganic Arsenic Emissions From Primary Copper Smelters		X		
P	Inorganic Arsenic Emissions From Arsenic Trioxide and Metallic Arsenic Production Facilities		X		
Q	Radon Emissions From Department of Energy Facilities				
R	Radon Emissions From Phosphogypsum Stacks				
S	(Reserved)				
T	Radon Emissions From the Disposal of Uranium Mill Tailings				
U	(Reserved)				
V	Equipment Leaks (Fugitive Emission Sources)		X		
W	Radon Emissions From Operating Mill Tailings				
X	(Reserved)				
Y	Benzene Emissions From Benzene Storage Vessels		X	X	
Z-AA	(Reserved)				
BB	Benzene Emissions From Benzene Transfer Operations		X	X	
CC-EE	(Reserved)				
FF	Benzene Waste Operations		X	X	

(B) [Reserved]

(C) Delegations for Glenn County Air Pollution Control District, Great Basin Unified Air Pollution Control District, Imperial County Air Pollution Control District, and Kern County Air Pollution Control District are shown in the following table:

DELEGATION STATUS FOR NATIONAL EMISSIONS STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR GLENN COUNTY APCD, GREAT BASIN UNIFIED APCD, IMPERIAL COUNTY APCD, AND KERN COUNTY APCD

	Subpart	Air Pollution Control Agency			
		Glenn County APCD	Great Basin Unified APCD	Imperial County APCD	Kern County APCD
A	General Provisions	X	X		
B	Radon Emissions From Underground Uranium				
C	Beryllium	X	X		
D	Beryllium Rocket Motor Firing	X	X		
E	Mercury	X	X		
F	Vinyl Chloride	X			
G	(Reserved)				

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H	Emissions of Radionuclides Other Than Radon From Department of Energy Facilities				
I	Radionuclide Emissions From Federal Facilities Other Than Nuclear Regulatory Commission Licensees and Not Covered by Subpart H				
J	Equipment Leaks (Fugitive Emission Sources) of Benzene	X			
K	Radionuclide Emissions From Elemental Phosphorus Plants				
L	Benzene Emissions from Coke By-Product Recovery Plants	X			
M	Asbestos	X	X		
N	Inorganic Arsenic Emissions From Glass Manufacturing Plants	X			
O	Inorganic Arsenic Emissions From Primary Copper Smelters	X			
P	Inorganic Arsenic Emissions From Arsenic Trioxide and Metallic Arsenic Production Facilities	X			
Q	Radon Emissions From Department of Energy Facilities				
R	Radon Emissions From Phosphogypsum Stacks				
S	(Reserved)				
T	Radon Emissions From the Disposal of Uranium Mill Tailings				
U	(Reserved)				
V	Equipment Leaks (Fugitive Emission Sources)	X			
W	Radon Emissions From Operating Mill Tailings				
X	(Reserved)				
Y	Benzene Emissions From Benzene Storage Vessels	X			
Z-AA	(Reserved)				
BB	Benzene Emissions From Benzene Transfer Operations	X			
CC-BE	(Reserved)				
FF	Benzene Waste Operations	X			

(D) Delegations for Lake County Air Quality Management District, Lassen County Air Pollution Control District, Mariposa County Air Pollution Control District, and Mendocino County Air Pollution Control District are shown in the following table:

DELEGATION STATUS FOR NATIONAL EMISSIONS STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR LAKE COUNTY AIR QUALITY MANAGEMENT DISTRICT, LASSEN COUNTY AIR POLLUTION CONTROL DISTRICT, MARIPOSA COUNTY AIR POLLUTION CONTROL DISTRICT, AND MENDOCINO COUNTY AIR POLLUTION CONTROL DISTRICT

Subpart	Air pollution control agency			
	Lake County AQMD	Lassen County APCD	Mariposa County AQMD	Mendocino County AQMD
A General Provisions	X		X	
B Radon Emissions From Underground Uranium				

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C	Beryllium	X			X
D	Beryllium Rocket Motor Firing	X			X
E	Mercury	X			X
F	Vinyl Chloride				X
G	(Reserved)				
H	Emissions of Radionuclides Other Than Radon From Department of Energy Facilities				
I	Radionuclide Emissions From Federal Facilities Other Than Nuclear Regulatory Commission Licensees and Not Covered by Subpart H				
J	Equipment Leaks (Fugitive Emission Sources) of Benzene				
K	Radionuclide Emissions From Elemental Phosphorus Plants				
L	Benzene Emissions from Coke By-Product Recovery Plants				
M	Asbestos	X			X

(E) Delegations for Modoc Air Pollution Control District, Mojave Desert Air Quality Management District, Monterey Bay Unified Air Pollution Control District, and North Coast Unified Air Quality Management District are shown in the following table:

DELEGATION STATUS FOR NATIONAL EMISSIONS STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR MODOC COUNTY APCD, MOJAVE DESERT AQMD, MONTEREY BAY UNIFIED APCD, AND NORTH COAST UNIFIED AQMD

Subpart	Air pollution control agency	Air pollution control agency			
		Modoc County APCD	Mojave Desert AQMD	Monterey Bay Unified APCD	North Coast Unified AQMD
A General Provisions		X	X	X	X
B Radon Emissions From Underground Uranium Mines					
C Beryllium		X	X	X	X
D Beryllium Rocket Motor Firing		X	X	X	X
E Mercury		X	X	X	X
F Vinyl Chloride		X	X	X	X
G (Reserved)					
H Emissions of Radionuclides Other Than Radon From Department of Energy Facilities					
I Radionuclide Emissions From Federal Facilities Other Than Nuclear Regulatory Commission Licensees and Not Covered by Subpart H					
J Equipment Leaks (Fugitive Emission Sources) of Benzene		X	X	X	X
K Radionuclide Emissions From Elemental Phosphorus Plants					
L Benzene Emissions from Coke By-Product Recovery Plants			X	X	X

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M	Asbestos	X	X	X	X
N	Inorganic Arsenic Emissions From Glass Manufacturing Plants		X	X	
O	Inorganic Arsenic Emissions From Primary Copper Smelters	X	X	X	
P	Inorganic Arsenic Emissions From Arsenic Trioxide and Metallic Arsenic Production Facilities	X	X	X	
Q	Radon Emissions From Department of Energy Facilities				
R	Radon Emissions From Phosphogypsum Stacks				
S	(Reserved)				
T	Radon Emissions From the Disposal of Uranium Mill Tailings				
U	(Reserved)				
V	Equipment Leaks (Fugitive Emission Sources)	X	X	X	X
W	Radon Emissions From Operating Mill Tailings				
X	(Reserved)				
Y	Benzene Emissions From Benzene Storage Vessels		X	X	X
Z-AA	(Reserved)				
BB	Benzene Emissions From Benzene Transfer Operations		X	X	
CC-EE	(Reserved)				
FF	Benzene Waste Operations		X	X	

(F) Delegations for Northern Sierra Air Quality Management District, Northern Sonoma County Air Pollution Control District, Placer County Air Pollution Control District, and Sacramento Metropolitan Air Quality Management District are shown in the following table:

DELEGATION STATUS FOR NATIONAL EMISSIONS STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR NORTHERN SIERRA AIR QUALITY MANAGEMENT DISTRICT, NORTHERN SONOMA COUNTY AIR POLLUTION CONTROL DISTRICT, PLACER COUNTY AIR POLLUTION CONTROL DISTRICT, AND SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

Subpart	Air pollution control agency			
	Northern Sierra AQMD	Northern Sonoma County APCD	Placer County APCD	Sacramento Metro AQMD
A General Provisions		X		
B Radon Emissions From Underground Uranium				
C Beryllium		X		
D Beryllium Rocket Motor Firing		X		
E Mercury		X		
F Vinyl Chloride		X		X
G (Reserved)				

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H	Emissions of Radionuclides Other Than Radon From Department of Energy Facilities				
I	Radionuclide Emissions From Federal Facilities Other Than Nuclear Regulatory Commission Licensees and Not Covered by Subpart H				
J	Equipment Leaks (Fugitive Emission Sources) of Benzene				
K	Radionuclide Emissions From Elemental Phosphorus Plants				
L	Benzene Emissions from Coke By-Product Recovery Plants				
M	Asbestos		X		X

(G) Delegations for San Diego County Air Pollution Control District, San Joaquin Valley Unified Air Pollution Control District, San Luis Obispo County Air Pollution Control District, and Santa Barbara County Air Pollution Control District are shown in the following table:

DELEGATION STATUS FOR NATIONAL EMISSIONS STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SAN DIEGO COUNTY AIR POLLUTION CONTROL DISTRICT, SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT, SAN LUIS OBISPO COUNTY AIR POLLUTION CONTROL DISTRICT, AND SANTA BARBARA COUNTY AIR POLLUTION CONTROL DISTRICT

Subpart	Air Pollution Control Agency	Air Pollution Control Agency			
		San Diego County APCD	San Joaquin Valley APCD	San Luis Obispo County APCD	Santa Barbara County APCD
A General Provisions		X	X	X	X
B Radon Emissions From Underground Uranium					
C Beryllium		X	X	X	X
D Beryllium Rocket Motor Firing		X	X	X	X
E Mercury		X	X	X	X
F Vinyl Chloride		X	X	X	X
G (Reserved)					
H Emissions of Radionuclides Other Than Radon From Department of Energy Facilities					
I Radionuclide Emissions From Federal Facilities Other Than Nuclear Regulatory Commission Licensees and Not Covered by Subpart H					
J Equipment Leaks (Fugitive Emission Sources) of Benzene			X	X	X
K Radionuclide Emissions From Elemental Phosphorus Plants			X		
L Benzene Emissions from Coke By-Product Recovery Plants			X	X	X
M Asbestos		X	X	X	X

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N	Inorganic Arsenic Emissions From Glass Manufacturing Plants		X	X	X
O	Inorganic Arsenic Emissions From Primary Copper Smelters		X	X	X
P	Inorganic Arsenic Emissions From Arsenic Trioxide and Metallic Arsenic Production Facilities		X	X	X
Q	Radon Emissions From Department of Energy Facilities				
R	Radon Emissions From Phosphogypsum Stacks				
S	(Reserved)				
T	Radon Emissions From the Disposal of Uranium Mill Tailings				
U	(Reserved)				
V	Equipment Leaks (Fugitive Emission Sources)		X	X	X
W	Radon Emissions From Operating Mill Tailings				
X	(Reserved)				
Y	Benzene Emissions From Benzene Storage Vessels		X	X	X
Z-AA	(Reserved)				
BB	Benzene Emissions From Benzene Transfer Operations		X	X	X
CC-EE	(Reserved)				
FF	Benzene Waste Operations		X	X	X

(H) Delegations for Shasta County Air Quality Management District, Siskiyou County Air Pollution Control District, South Coast Air Quality Management District, and Tehama County Air Pollution Control District are shown in the following table:

DELEGATION STATUS FOR NATIONAL EMISSIONS STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SHASTA COUNTY AIR QUALITY MANAGEMENT DISTRICT, SISKIYOU COUNTY AIR POLLUTION CONTROL DISTRICT, SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT, AND TEHAMA COUNTY AIR POLLUTION CONTROL DISTRICT

	Subpart	Air pollution control agency			
		Shasta County AQMD	Siskiyou County APCD	South Coast AQMD	Tehama County APCD
A	General Provisions			X	
B	Radon Emissions From Underground Uranium				
C	Beryllium	X		X	
D	Beryllium Rocket Motor Firing	X		X	
E	Mercury	X		X	
F	Vinyl Chloride	X		X	
G	(Reserved)				
H	Emissions of Radionuclides Other Than Radon From Department of Energy Facilities				

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I	Radionuclide Emissions From Federal Facilities Other Than Nuclear Regulatory Commission Licensees and Not Covered by Subpart H				
J	Equipment Leaks (Fugitive Emission Sources) of Benzene			X	
K	Radionuclide Emissions From Elemental Phosphorus Plants				
L	Benzene Emissions from Coke By-Product Recovery Plants			X	
M	Asbestos	X		X	
N	Inorganic Arsenic Emissions From Glass Manufacturing Plants			X	
O	Inorganic Arsenic Emissions From Primary Copper Smelters			X	
P	Inorganic Arsenic Emissions From Arsenic Trioxide and Metallic Arsenic Production Facilities			X	
Q	Radon Emissions From Department of Energy Facilities				
R	Radon Emissions From Phosphogypsum Stacks				
S	(Reserved)				
T	Radon Emissions From the Disposal of Uranium Mill Tailings				
U	(Reserved)				
V	Equipment Leaks (Fugitive Emission Sources)			X	
W	Radon Emissions From Operating Mill Tailings				
X	(Reserved)				
Y	Benzene Emissions From Benzene Storage Vessels			X	
Z-AA	(Reserved)				
BB	Benzene Emissions From Benzene Transfer Operations			X	
CC-EE	(Reserved)				
FF	Benzene Waste Operations			X	

(I) Delegations for Tuolumne County Air Pollution Control District, Ventura County Air Pollution Control District, and Yolo-Solano Air Quality Management District are shown in the following table:

DELEGATION STATUS FOR NATIONAL EMISSIONS STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR TUOLUMNE COUNTY AIR POLLUTION CONTROL DISTRICT, VENTURA COUNTY AIR POLLUTION CONTROL DISTRICT, AND YOLO-SOLANO AIR QUALITY MANAGEMENT DISTRICT

	Subpart	Air Pollution Control Agency		
		Tuolumne County APCD	Ventura County APCD	Yolo-Solano AQMD
A	General Provisions	X		
B	Radon Emissions From Underground Uranium			
C	Beryllium	X		
D	Beryllium Rocket Motor Firing	X		

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E	Mercury	X	X	
F	Vinyl Chloride	X		
G	(Reserved)			
H	Emissions of Radionuclides Other Than Radon From Department of Energy Facilities			
I	Radionuclide Emissions From Federal Facilities Other Than Nuclear Regulatory Commission Licensees and Not Covered by Subpart H			
J	Equipment Leaks (Fugitive Emission Sources) of Benzene	X		
K	Radionuclide Emissions From Elemental Phosphorus Plants			
L	Benzene Emissions from Coke By-Product Recovery Plants	X		
M	Asbestos	X	X	
N	Inorganic Arsenic Emissions From Glass Manufacturing Plants	X		
O	Inorganic Arsenic Emissions From Primary Copper Smelters	X		
P	Inorganic Arsenic Emissions From Arsenic Trioxide and Metallic Arsenic Production Facilities	X		
Q	Radon Emissions From Department of Energy Facilities			
R	Radon Emissions From Phosphogypsum Stacks			
S	(Reserved)			
T	Radon Emissions From the Disposal of Uranium Mill Tailings			
U	(Reserved)			
V	Equipment Leaks (Fugitive Emission Sources)	X		
W	Radon Emissions From Operating Mill Tailings			
X	(Reserved)			
Y	Benzene Emissions From Benzene Storage Vessels	X		
Z-AA	(Reserved)			
BB	Benzene Emissions From Benzene Transfer Operations	X		
CC-EE	(Reserved)			
FF	Benzene Waste Operations	X		

(iii) Hawaii. The following table identifies delegations as of October 21, 2004:

DELEGATION STATUS FOR NATIONAL EMISSIONS STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR HAWAII

	Subpart	Hawaii
A	General Provisions	X
B	Radon Emissions From Underground Uranium	
C	Beryllium	X
D	Beryllium Rocket Motor Firing	X
E	Mercury	X
F	Vinyl Chloride	
G	(Reserved)	

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H	Emissions of Radionuclides Other Than Radon From Department of Energy Facilities			
I	Radionuclide Emissions From Federal Facilities Other Than Nuclear Regulatory Commission Licensees and Not Covered by Subpart H			
J	Equipment Leaks (Fugitive Emission Sources) of Benzene			X
K	Radionuclide Emissions From Elemental Phosphorus Plants			
L	Benzene Emissions from Coke By-Product Recovery Plants			
M	Asbestos			X
N	Inorganic Arsenic Emissions From Glass Manufacturing Plants			
O	Inorganic Arsenic Emissions From Primary Copper Smelters			
P	Inorganic Arsenic Emissions From Arsenic Trioxide and Metallic Arsenic Production Facilities			
Q	Radon Emissions From Department of Energy Facilities			
R	Radon Emissions From Phosphogypsum Stacks			
S	(Reserved)			
T	Radon Emissions From the Disposal of Uranium Mill Tailings			
U	(Reserved)			
V	Equipment Leaks (Fugitive Emission Sources)			X
W	Radon Emissions From Operating Mill Tailings			
X	(Reserved)			
Y	Benzene Emissions From Benzene Storage Vessels			X
Z-AA	(Reserved)			
BB	Benzene Emissions From Benzene Transfer Operations			X
CC-EE	(Reserved)			
FF	Benzene Waste Operations			X

(iv) Nevada. The following table identifies delegations for Nevada:

DELEGATION STATUS FOR NATIONAL EMISSIONS STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR NEVADA

	Subpart	Air pollution control agency		
		Nevada DEP	Clark County	Washoe County
A	General Provisions	X	X	
B	Radon Emissions From Underground Uranium Mines			
C	Beryllium	X	X	X
D	Beryllium Rocket Motor Firing	X	X	
E	Mercury	X	X	
F	Vinyl Chloride	X	X	
G	(Reserved)			
H	Emissions of Radionuclides Other Than Radon From Department of Energy Facilities	X		
I	Radionuclide Emissions From Federal Facilities Other Than Nuclear Regulatory Commission Licensees and Not Covered by Subpart H	X		

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J	Equipment Leaks (Fugitive Emission Sources) of Benzene	X	X	
K	Radionuclide Emissions From Elemental Phosphorus Plants	X		
L	Benzene Emissions from Coke By-Product Recovery Plants	X	X	
M	Asbestos		X	X
N	Inorganic Arsenic Emissions From Glass Manufacturing Plants	X	X	
O	Inorganic Arsenic Emissions From Primary Copper Smelters	X	X	
P	Inorganic Arsenic Emissions From Arsenic Trioxide and Metallic Arsenic Production Facilities	X	X	
Q	Radon Emissions From Department of Energy Facilities			
R	Radon Emissions From Phosphogypsum Stacks			
S	(Reserved)			
T	Radon Emissions From the Disposal of Uranium Mill Tailings			
U	(Reserved)			
V	Equipment Leaks (Fugitive Emission Sources)	X	X	
W	Radon Emissions From Operating Mill Tailings			
X	(Reserved)			
Y	Benzene Emissions From Benzene Storage Vessels	X	X	
Z-AA	(Reserved)			
BB	Benzene Emissions From Benzene Transfer Operations	X	X	
CC-EE	(Reserved)			
FF	Benzene Waste Operations	X	X	

(10) The following table lists the delegation status of specific Part 61 Subparts that have been delegated unchanged to state and local air pollution control agencies in Region 10. An "X" indicates the subpart has been delegated, subject to all the conditions and limitations set forth in federal law, regulations, policy, guidance, and determinations. Some authorities cannot be delegated and are retained by EPA. These include certain General Provisions authorities and specific parts of some standards. The dates noted at the end of this table indicate the effective dates of federal rules that have been delegated. Any amendments made to these rules after this effective date are not delegated.

DELEGATION STATUS FOR PART 61 STANDARDS—REGION 10¹

Subparts ²	AK			OR			WA							
	ADE C ³	IDE Q ⁴	ODE Q ⁵	LRAP A ⁶	Ecolog y ⁷	BCA A ⁸	NWCA A ⁹	ORCA A ¹⁰	PSCA A ¹¹	SWCA A ¹²	SCAPC A ¹³	YRCA A ¹⁴	WDO H ¹⁵	
A General Provisions ¹⁶	X ¹⁶	X ¹⁶	X ¹⁶	X ¹⁶	X ¹⁶	X ¹⁶	X ¹⁶	X ¹⁶	X ¹⁶	X ¹⁶	X ¹⁶	X ¹⁶	X ¹⁷	
B Radon from Underground Uranium Mines													X	
C Beryllium Rocket Motor Firing		X	X	X	X	X	X	X	X	X	X	X		

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D Beryllium Rocket Motor Firing		X	X	X	X	X	X	X	X	X	X	X	
E Mercury	X	X	X	X	X	X	X	X	X	X	X	X	
F Vinyl Chloride		X	X	X	X	X	X	X	X	X	X	X	
H Radionuclide other than Radon from Dept. of Energy Facilities													X
I Radionuclide from Federal Facilities other than Nuclear Regulatory Commission Licensees and not covered by Subpart H													X
J Equipment Leaks of Benzene	X	X	X	X	X	X	X	X	X	X	X	X	
K Radionuclide from Elemental Phosphorus Plants													X
L Benzene from Coke By-Product Recovery Plants		X	X	X	X	X	X	X	X	X	X	X	
M Asbestos	X				X	X	X	X	X	X	X	X	
N Inorganic Arsenic from Glass Manufacturing Plants		X	X		X	X	X	X	X	X	X	X	
O Inorganic Arsenic from Primary Copper Smelters		X	X		X	X	X	X	X	X	X	X	
P Inorganic Arsenic emissions		X	X		X	X	X	X	X	X	X	X	

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(b) After the effective date of any standard, no owner or operator shall operate a new stationary source subject to that standard in violation of the standard, except under an exemption granted by the President under section 112(c)(2) of the Act.

(c) Ninety days after the effective date of any standard, no owner or operator shall operate any existing source subject to that standard in violation of the standard, except under a waiver granted by the Administrator under this part or under an exemption granted by the President under section 112(c)(2) of the Act.

(d) No owner or operator subject to the provisions of this part shall fail to report, revise reports, or report source test results as required under this part.

[38 FR 8826, Apr. 6, 1973, as amended at 50 FR 46291, Nov. 7, 1985]

§61.06 Determination of construction or modification.

An owner or operator may submit to the Administrator a written application for a determination of whether actions intended to be taken by the owner or operator constitute construction or modification, or commencement thereof, of a source subject to a standard. The Administrator will notify the owner or operator of his determination within 30 days after receiving sufficient information to evaluate the application.

[50 FR 46291, Nov. 7, 1985]

§61.07 Application for approval of construction or modification.

(a) The owner or operator shall submit to the Administrator an application for approval of the construction of any new source or modification of any existing source. The application shall be submitted before the construction or modification is planned to commence, or within 30 days after the effective date if the construction or modification had commenced before the effective date and initial startup has not occurred. A separate application shall be submitted for each stationary source.

(b) Each application for approval of construction shall include—

(1) The name and address of the applicant;

(2) The location or proposed location of the source; and

(3) Technical information describing the proposed nature, size, design, operating design capacity, and method of operation of the source, including a description of any equipment to be used for control of emissions. Such technical information shall include calculations of emission estimates in sufficient detail to permit assessment of the validity of the calculations.

(c) Each application for approval of modification shall include, in addition to the information required in paragraph (b) of this section—

(1) The precise nature of the proposed changes;

(2) The productive capacity of the source before and after the changes are completed; and

(3) Calculations of estimates of emissions before and after the changes are completed, in sufficient detail to permit assessment of the validity of the calculations.

[50 FR 46291, Nov. 7, 1985]

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§61.08 Approval of construction or modification.

(a) The Administrator will notify the owner or operator of approval or intention to deny approval of construction or modification within 60 days after receipt of sufficient information to evaluate an application under §61.07.

(b) If the Administrator determines that a stationary source for which an application under §61.07 was submitted will not cause emissions in violation of a standard if properly operated, the Administrator will approve the construction or modification.

(c) Before denying any application for approval of construction or modification, the Administrator will notify the applicant of the Administrator's intention to issue the denial together with—

(1) Notice of the information and findings on which the intended denial is based; and

(2) Notice of opportunity for the applicant to present, within such time limit as the Administrator shall specify, additional information or arguments to the Administrator before final action on the application.

(d) A final determination to deny any application for approval will be in writing and will specify the grounds on which the denial is based. The final determination will be made within 60 days of presentation of additional information or arguments, or 60 days after the final date specified for presentation if no presentation is made.

(e) Neither the submission of an application for approval nor the Administrator's approval of construction or modification shall—

(1) Relieve an owner or operator of legal responsibility for compliance with any applicable provisions of this part or of any other applicable Federal, State, or local requirement; or

(2) Prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

[50 FR 46291, Nov. 7, 1985]

§61.09 Notification of startup.

(a) The owner or operator of each stationary source which has an initial startup after the effective date of a standard shall furnish the Administrator with written notification as follows:

(1) A notification of the anticipated date of initial startup of the source not more than 60 days nor less than 30 days before that date.

(2) A notification of the actual date of initial startup of the source within 15 days after that date.

(b) If any State or local agency requires a notice which contains all the information required in the notification in paragraph (a) of this section, sending the Administrator a copy of that notification will satisfy paragraph (a) of this section.

[50 FR 46291, Nov. 7, 1985]

§61.10 Source reporting and waiver request.

(a) The owner or operator of each existing source or each new source which had an initial startup before the effective date shall provide the following information in writing to the Administrator within 90 days after the effective date:

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- (1) Name and address of the owner or operator.
- (2) The location of the source.
- (3) The type of hazardous pollutants emitted by the stationary source.
- (4) A brief description of the nature, size, design, and method of operation of the stationary source including the operating design capacity of the source. Identify each point of emission for each hazardous pollutant.
- (5) The average weight per month of the hazardous materials being processed by the source, over the last 12 months preceding the date of the report.
- (6) A description of the existing control equipment for each emission point including—
- (i) Each control device for each hazardous pollutant; and
- (ii) Estimated control efficiency (percent) for each control device.
- (7) A statement by the owner or operator of the source as to whether the source can comply with the standards within 90 days after the effective date.
- (b) The owner or operator of an existing source unable to comply with an applicable standard may request a waiver of compliance with that standard for a period not exceeding 2 years after the effective date. Any request shall be in writing and shall include the following information:
- (1) A description of the controls to be installed to comply with the standard.
- (2) A compliance schedule, including the date each step toward compliance will be reached. The list shall include as a minimum the following dates:
- (i) Date by which contracts for emission control systems or process changes for emission control will be awarded, or date by which orders will be issued for the purchase of component parts to accomplish emission control or process changes;
- (ii) Date of initiation of onsite construction or installation of emission control equipment or process change;
- (iii) Date by which onsite construction or installation of emission control equipment or process change is to be completed; and
- (iv) Date by which final compliance is to be achieved.
- (3) A description of interim emission control steps which will be taken during the waiver period.
- (c) Any change in the information provided under paragraph (a) of this section or §61.07(b) shall be provided to the Administrator within 30 days after the change. However, if any change will result from modification of the source, §§61.07(c) and 61.08 apply.
- (d) A possible format for reporting under this section is included as appendix A of this part. Advice on reporting the status of compliance may be obtained from the Administrator.
- (e) For the purposes of this part, time periods specified in days shall be measured in calendar days, even if the word "calendar" is absent, unless otherwise specified in an applicable requirement.

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- (f) For the purposes of this part, if an explicit postmark deadline is not specified in an applicable requirement for the submittal of a notification, application, report, or other written communication to the Administrator, the owner or operator shall postmark the submittal on or before the number of days specified in the applicable requirement. For example, if a notification must be submitted 15 days before a particular event is scheduled to take place, the notification shall be postmarked on or before 15 days preceding the event; likewise, if a notification must be submitted 15 days after a particular event takes place, the notification shall be postmarked on or before 15 days following the end of the event. The use of reliable non-Government mail carriers that provide indications of verifiable delivery of information required to be submitted to the Administrator, similar to the postmark provided by the U.S. Postal Service, or alternative means of delivery agreed to by the permitting authority, is acceptable.
- (g) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. Procedures governing the implementation of this provision are specified in paragraph (j) of this section.
- (h) If an owner or operator of a stationary source in a State with delegated authority is required to submit reports under this part to the State, and if the State has an established timeline for the submission of reports that is consistent with the reporting frequency(ies) specified for such source under this part, the owner or operator may change the dates by which reports under this part shall be submitted (without changing the frequency of reporting) to be consistent with the State's schedule by mutual agreement between the owner or operator and the State. The allowance in the previous sentence applies in each State beginning 1 year after the source is required to be in compliance with the applicable subpart in this part. Procedures governing the implementation of this provision are specified in paragraph (j) of this section.
- (i) If an owner or operator supervises one or more stationary sources affected by standards set under this part and standards set under part 60, part 63, or both such parts of this chapter, he/she may arrange by mutual agreement between the owner or operator and the Administrator (or the State with an approved permit program) a common schedule on which reports required by each applicable standard shall be submitted throughout the year. The allowance in the previous sentence applies in each State beginning 1 year after the source is required to be in compliance with the applicable subpart in this part, or 1 year after the source is required to be in compliance with the applicable part 60 or part 63 standard, whichever is latest. Procedures governing the implementation of this provision are specified in paragraph (j) of this section.
- (j)(1)(i) Until an adjustment of a time period or postmark deadline has been approved by the Administrator under paragraphs (j)(2) and (j)(3) of this section, the owner or operator of an affected source remains strictly subject to the requirements of this part.
- (ii) An owner or operator shall request the adjustment provided for in paragraphs (j)(2) and (j)(3) of this section each time he or she wishes to change an applicable time period or postmark deadline specified in this part.
- (2) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. An owner or operator who wishes to request a change in a time period or postmark deadline for a particular requirement shall request the adjustment in writing as soon as practicable before the subject activity is required to take place. The owner or operator shall include in the request whatever information he or she considers useful to convince the Administrator that an adjustment is warranted.
- (3) If, in the Administrator's judgment, an owner or operator's request for an adjustment to a particular time period or postmark deadline is warranted, the Administrator will approve the adjustment. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an adjustment within 15 calendar days of receiving sufficient information to evaluate the request.
- (4) If the Administrator is unable to meet a specified deadline, he or she will notify the owner or operator of any significant delay and inform the owner or operator of the amended schedule.

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[38 FR 8826, Apr. 6, 1973, as amended at 50 FR 46292, Nov. 7, 1985; 59 FR 12430, Mar. 16, 1994]

§61.11 Waiver of compliance.

(a) Based on the information provided in any request under §61.10, or other information, the Administrator may grant a waiver of compliance with a standard for a period not exceeding 2 years after the effective date of the standard.

(b) The waiver will be in writing and will—

(1) Identify the stationary source covered;

(2) Specify the termination date of the waiver;

(3) Specify dates by which steps toward compliance are to be taken; and

(4) Specify any additional conditions which the Administrator determines necessary to assure installation of the necessary controls within the waiver period and to assure protection of the health of persons during the waiver period.

(c) The Administrator may terminate the waiver at an earlier date than specified if any specification under paragraphs (b)(3) and (b)(4) of this section are not met.

(d) Before denying any request for a waiver, the Administrator will notify the owner or operator making the request of the Administrator's intention to issue the denial, together with—

(1) Notice of the information and findings on which the intended denial is based; and

(2) Notice of opportunity for the owner or operator to present, within the time limit the Administrator specifies, additional information or arguments to the Administrator before final action on the request.

(e) A final determination to deny any request for a waiver will be in writing and will set forth the specific grounds on which the denial is based. The final determination will be made within 60 days after presentation of additional information or argument; or within 60 days after the final date specified for the presentation if no presentation is made.

(f) The granting of a waiver under this section shall not abrogate the Administrator's authority under section 114 of the Act.

[50 FR 46292, Nov. 7, 1985]

§61.12 Compliance with standards and maintenance requirements.

(a) Compliance with numerical emission limits shall be determined in accordance with emission tests established in §61.13 or as otherwise specified in an individual subpart.

(b) Compliance with design, equipment, work practice or operational standards shall be determined as specified in an individual subpart.

(c) The owner or operator of each stationary source shall maintain and operate the source, including associated equipment for air pollution control, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operating and maintenance procedures, and inspection of the source.

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(d)(1) If, in the Administrator's judgment, an alternative means of emission limitation will achieve a reduction in emissions of a pollutant from a source at least equivalent to the reduction in emissions of that pollutant from that source achieved under any design, equipment, work practice or operational standard, the Administrator will publish in the FEDERAL REGISTER a notice permitting the use of the alternative means for purposes of compliance with the standard. The notice will restrict the permission to the source(s) or category(ies) of sources on which the alternative means will achieve equivalent emission reductions. The notice may condition permission on requirements related to the operation and maintenance of the alternative means.

(2) Any notice under paragraph (d)(1) shall be published only after notice and an opportunity for a hearing.

(3) Any person seeking permission under this subsection shall, unless otherwise specified in the applicable subpart, submit a proposed test plan or the results of testing and monitoring, a description of the procedures followed in testing or monitoring, and a description of pertinent conditions during testing or monitoring.

(e) For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in this part, nothing in this part shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test had been performed.

[50 FR 46292, Nov. 7, 1985, as amended 62 FR 8328, Feb. 24, 1997]

§61.13 Emission tests and waiver of emission tests.

(a) Except as provided in paragraphs (a)(3), (a)(4), (a)(5), and (a)(6) of this section, if required to do emission testing by an applicable subpart and unless a waiver of emission testing is obtained under this section, the owner or operator shall test emissions from the source:

(1) Within 90 days after the effective date, for an existing source or a new source which has an initial startup date before the effective date.

(2) Within 90 days after initial startup, for a new source which has an initial startup date after the effective date.

(3) If a force majeure is about to occur, occurs, or has occurred for which the affected owner or operator intends to assert a claim of force majeure, the owner or operator shall notify the Administrator, in writing as soon as practicable following the date the owner or operator first knew, or through due diligence should have known that the event may cause or caused a delay in testing beyond the regulatory deadline specified in paragraphs (a)(1) or (a)(2) of this section or beyond a deadline established pursuant to the requirements under paragraph (b) of this section, but the notification must occur before the performance test deadline unless the initial force majeure or a subsequent force majeure event delays the notice, and in such cases, the notification shall occur as soon as practicable.

(4) The owner or operator shall provide to the Administrator a written description of the force majeure event and a rationale for attributing the delay in testing beyond the regulatory deadline to the force majeure; describe the measures taken or to be taken to minimize the delay; and identify a date by which the owner or operator proposes to conduct the performance test. The performance test shall be conducted as soon as practicable after the force majeure occurs.

(5) The decision as to whether or not to grant an extension to the performance test deadline is solely within the discretion of the Administrator. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an extension as soon as practicable.

(6) Until an extension of the performance test deadline has been approved by the Administrator under paragraphs (a)(3), (a)(4), and (a)(5) of this section, the owner or operator of the affected facility remains strictly subject to the requirements of this part.

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(b) The Administrator may require an owner or operator to test emissions from the source at any other time when the action is authorized by section 114 of the Act.

(c) The owner or operator shall notify the Administrator of the emission test at least 30 days before the emission test to allow the Administrator the opportunity to have an observer present during the test.

(d) If required to do emission testing, the owner or operator of each new source and, at the request of the Administrator, the owner or operator of each existing source shall provide emission testing facilities as follows:

- (1) Sampling ports adequate for test methods applicable to each source.
- (2) Safe sampling platform(s).
- (3) Safe access to sampling platform(s).
- (4) Utilities for sampling and testing equipment.
- (5) Any other facilities that the Administrator needs to safely and properly test a source.

(e) Each emission test shall be conducted under such conditions as the Administrator shall specify based on design and operational characteristics of the source.

(1) The performance testing shall include a test method performance audit (PA) during the performance test. The PAs consist of blind audit samples supplied by an accredited audit sample provider and analyzed during the performance test in order to provide a measure of test data bias. Gaseous audit samples are designed to audit the performance of the sampling system as well as the analytical system and must be collected by the sampling system during the compliance test just as the compliance samples are collected. If a liquid or solid audit sample is designed to audit the sampling system, it must also be collected by the sampling system during the compliance test. If multiple sampling systems or sampling trains are used during the compliance test for any of the test methods, the tester is only required to use one of the sampling systems per method to collect the audit sample. The audit sample must be analyzed by the same analyst using the same analytical reagents and analytical system and at the same time as the compliance samples. Retests are required when there is a failure to produce acceptable results for an audit sample. However, if the audit results do not affect the compliance or noncompliance status of the affected facility, the compliance authority may waive the reanalysis requirement, further audits, or retests and accept the results of the compliance test. Acceptance of the test results shall constitute a waiver of the reanalysis requirement, further audits, or retests. The compliance authority may also use the audit sample failure and the compliance test results as evidence to determine the compliance or noncompliance status of the affected facility. A blind audit sample is a sample whose value is known only to the sample provider and is not revealed to the tested facility until after they report the measured value of the audit sample. For pollutants that exist in the gas phase at ambient temperature, the audit sample shall consist of an appropriate concentration of the pollutant in air or nitrogen that can be introduced into the sampling system of the test method at or near the same entry point as a sample from the emission source. If no gas phase audit samples are available, an acceptable alternative is a sample of the pollutant in the same matrix that would be produced when the sample is recovered from the sampling system as required by the test method. For samples that exist only in a liquid or solid form at ambient temperature, the audit sample shall consist of an appropriate concentration of the pollutant in the same matrix that would be produced when the sample is recovered from the sampling system as required by the test method. An accredited audit sample provider (AASP) is an organization that has been accredited to prepare audit samples by an independent, third party accrediting body.

(i) The source owner, operator, or representative of the tested facility shall obtain an audit sample, if commercially available, from an AASP for each test method used for regulatory compliance purposes. No audit samples are required for the following test methods: Methods 3A and 3C of appendix A-3 of part 60 of this chapter; Methods 6C, 7E, 9, and 10 of appendix A-4 of part 60; Method 18 and 19 of appendix A-6 of part 60; Methods 20, 22, and 25A of appendix A-7 of part 60; Methods 30A and 30B of appendix A-8 of part 60; and Methods 303, 318, 320, and 321 of appendix A of part 63 of this chapter. If multiple sources at a single facility are tested during a compliance test event, only one audit sample is required for

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each method used during a compliance test. The compliance authority responsible for the compliance test may waive the requirement to include an audit sample if they believe that an audit sample is not necessary. "Commercially available" means that two or more independent AASPs have blind audit samples available for purchase. If the source owner, operator, or representative cannot find an audit sample for a specific method, the owner, operator, or representative shall consult the EPA Web site at the following URL, www.epa.gov/ttn/ems, to confirm whether there is a source that can supply an audit sample for that method. If the EPA Web site does not list an available audit sample at least 60 days prior to the beginning of the compliance test, the source owner, operator, or representative shall not be required to include an audit sample as part of the quality assurance program for the compliance test. When ordering an audit sample, the source owner, operator, or representative shall give the sample provider an estimate for the concentration of each pollutant that is emitted by the source or the estimated concentration of each pollutant based on the permitted level and the name, address, and phone number of the compliance authority. The source owner, operator, or representative shall report the results for the audit sample along with a summary of the emission test results for the audited pollutant to the compliance authority and shall report the results of the audit sample to the AASP. The source owner, operator, or representative shall make both reports at the same time and in the same manner or shall report to the compliance authority first and then report to the AASP. If the method being audited is a method that allows the samples to be analyzed in the field and the tester plans to analyze the samples in the field, the tester may analyze the audit samples prior to collecting the emission samples provided a representative of the compliance authority is present at the testing site. The tester may request, and the compliance authority may grant, a waiver to the requirement that a representative of the compliance authority must be present at the testing site during the field analysis of an audit sample. The source owner, operator, or representative may report the results of the audit sample to the compliance authority and then report the results of the audit sample to the AASP prior to collecting any emission samples. The test protocol and final test report shall document whether an audit sample was ordered and utilized and the pass/fail results as applicable.

(ii) An AASP shall have and shall prepare, analyze, and report the true value of audit samples in accordance with a written technical criteria document that describes how audit samples will be prepared and distributed in a manner that will ensure the integrity of the audit sample program. An acceptable technical criteria document shall contain standard operating procedures for all of the following operations:

- (A) Preparing the sample;
- (B) Confirming the true concentration of the sample;
- (C) Defining the acceptance limits for the results from a well-qualified tester. This procedure must use well established statistical methods to analyze historical results from well qualified testers. The acceptance limits shall be set so that there is 95 percent confidence that 90 percent of well qualified labs will produce future results that are within the acceptance limit range;
- (D) Providing the opportunity for the compliance authority to comment on the selected concentration level for an audit sample;
- (E) Distributing the sample to the user in a manner that guarantees that the true value of the sample is unknown to the user;
- (F) Recording the measured concentration reported by the user and determining if the measured value is within acceptable limits;
- (G) Reporting the results from each audit sample in a timely manner to the compliance authority and to the source owner, operator, or representative by the AASP. The AASP shall make both reports at the same time and in the same manner or shall report to the compliance authority first and then report to the source owner, operator, or representative. The results shall include the name of the facility tested, the date on which the compliance test was conducted, the name of the company performing the sample collection, the name of the company that analyzed the compliance samples including the audit sample, the measured result for the audit sample, and whether the testing company passed or failed the audit. The AASP shall report the true value of the audit sample to the compliance authority. The AASP may report the true value to the source owner, operator, or representative if the AASP's operating plan ensures that no laboratory will receive the same audit sample twice.

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(H) Evaluating the acceptance limits of samples at least once every two years to determine in consultation with the voluntary consensus standard body if they should be changed;

(I) Maintaining a database, accessible to the compliance authorities, of results from the audit that shall include the name of the facility tested, the date on which the compliance test was conducted, the name of the company performing the sample collection, the name of the company that analyzed the compliance samples including the audit sample, the measured result for the audit sample, the true value of the audit sample, the acceptance range for the measured value, and whether the testing company passed or failed the audit.

(iii) The accrediting body shall have a written technical criteria document that describes how it will ensure that the AASP is operating in accordance with the AASP technical criteria document that describes how audit or samples are to be prepared and distributed. This document shall contain standard operating procedures for all the following operations:

(A) Checking audit samples to confirm their true value as reported by the AASP.

(B) Performing technical systems audits of the AASP's facilities and operating procedures at least once every two years.

(C) Providing standards for use by the voluntary consensus standard body to approve the accrediting body that will accredit the audit sample providers.

(iv) The technical criteria documents for the accredited sample providers and the accrediting body shall be developed through a public process guided by a voluntary consensus standards body (VCSB). The VCSB shall operate in accordance with the procedures and requirements in the Office of Management and Budget *Circular A-119*. A copy of Circular A-119 is available upon request by writing the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW., Washington, DC 20503, by calling (202) 395-6880 or downloading online at http://standards.gov/standards_gov/a.119.cfm. The VCSB shall approve all accrediting bodies. The Administrator will review all technical criteria documents. If the technical criteria documents do not meet the minimum technical requirements in paragraphs (e)(1)(ii) through (iv) of this section, the technical criteria documents are not acceptable, and the proposed audit sample program is not capable of producing audit samples of sufficient quality to be used in a compliance test. All acceptable technical criteria documents shall be posted on the EPA Web site at the following URL, <http://www.epa.gov/ttn/emc>.

(2) [Reserved]

(f) Unless otherwise specified in an applicable subpart, samples shall be analyzed, and emissions determined within 30 days after each emission test has been completed. The owner or operator shall report the determinations of the emission test to the Administrator by a registered letter sent before the close of business on the 31st day following the completion of the emission test.

(g) The owner or operator shall retain at the source and make available, upon request, for inspection by the Administrator, for a minimum of 2 years, records of emission test results and other data needed to determine emissions.

(h)(1) Emission tests shall be conducted as set forth in this section, the applicable subpart and appendix B unless the Administrator—

(i) Specifies or approves the use of a reference method with minor changes in methodology; or

(ii) Approves the use of an alternative method; or

(iii) Waives the requirement for emission testing because the owner or operator of a source has demonstrated by other means to the Administrator's satisfaction that the source is in compliance with the standard.

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(2) If the Administrator finds reasonable grounds to dispute the results obtained by an alternative method, he may require the use of a reference method. If the results of the reference and alternative methods do not agree, the results obtained by the reference method prevail.

(3) The owner or operator may request approval for the use of an alternative method at any time, except—

(i) For an existing source or a new source that had an initial startup before the effective date, any request for use of an alternative method during the initial emission test shall be submitted to the Administrator within 30 days after the effective date, or with the request for a waiver of compliance if one is submitted under §60.10(b); or

(ii) For a new source that has an initial startup after the effective date, any request for use of an alternative method during the initial emission test shall be submitted to the Administrator no later than with the notification of anticipated startup required under §60.09.

(i)(1) Emission tests may be waived upon written application to the Administrator if, in the Administrator's judgment, the source is meeting the standard, or the source is being operated under a waiver or compliance, or the owner or operator has requested a waiver of compliance and the Administrator is still considering that request.

(2) If application for waiver of the emission test is made, the application shall accompany the information required by §61.10 or the notification of startup required by §61.09, whichever is applicable. A possible format is contained in appendix A to this part.

(3) Approval of any waiver granted under this section shall not abrogate the Administrator's authority under the Act or in any way prohibit the Administrator from later cancelling the waiver. The cancellation will be made only after notice is given to the owner or operator of the source.

[50 FR 46292, Nov. 7, 1985, as amended at 72 FR 27442, May 16, 2007; 75 FR 55652, Sept. 13, 2010; 79 FR 11275, Feb. 27, 2014; 81 FR 59825, Aug. 30, 2016]

§61.14 Monitoring requirements.

(a) Unless otherwise specified, this section applies to each monitoring system required under each subpart which requires monitoring.

(b) Each owner or operator shall maintain and operate each monitoring system as specified in the applicable subpart and in a manner consistent with good air pollution control practice for minimizing emissions. Any unavoidable breakdown or malfunction of the monitoring system should be repaired or adjusted as soon as practicable after its occurrence. The Administrator's determination of whether acceptable operating and maintenance procedures are being used will be based on information which may include, but not be limited to, review of operating and maintenance procedures, manufacturer recommendations and specifications, and inspection of the monitoring system.

(c) When required by the applicable subpart, and at any other time the Administrator may require, the owner or operator of a source being monitored shall conduct a performance evaluation of the monitoring system and furnish the Administrator with a copy of a written report of the results within 60 days of the evaluation. Such a performance evaluation shall be conducted according to the applicable specifications and procedures described in the applicable subpart. The owner or operator of the source shall furnish the Administrator with written notification of the date of the performance evaluation at least 30 days before the evaluation is to begin.

(d) When the effluents from a single source, or from two or more sources subject to the same emission standards, are combined before being released to the atmosphere, the owner or operator shall install a monitoring system on each effluent or on the combined effluent. If two or more sources are not subject to the same emission standards, the owner or operator shall install a separate monitoring system on each effluent, unless otherwise specified. If the applicable standard is a mass emission standard and the effluent from one source is released to the atmosphere through more than one point, the owner or operator

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shall install a monitoring system at each emission point unless the installation of fewer systems is approved by the Administrator.

(c) The owner or operator of each monitoring system shall reduce the monitoring data as specified in each applicable subpart. Monitoring data recorded during periods of unavoidable monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in any data average.

(f) The owner or operator shall maintain records of monitoring data, monitoring system calibration checks, and the occurrence and duration of any period during which the monitoring system is malfunctioning or inoperative. These records shall be maintained at the source for a minimum of 2 years and made available, upon request, for inspection by the Administrator.

(g)(1) Monitoring shall be conducted as set forth in this section and the applicable subpart unless the Administrator—

(i) Specifies or approves the use of the specified monitoring requirements and procedures with minor changes in methodology; or

(ii) Approves the use of alternatives to any monitoring requirements or procedures.

(2) If the Administrator finds reasonable grounds to dispute the results obtained by an alternative monitoring method, the Administrator may require the monitoring requirements and procedures specified in this part.

[50 FR 46293, Nov. 7, 1985]

§61.15 Modification.

(a) Except as provided under paragraph (d) of this section, any physical or operational change to a stationary source which results in an increase in the rate of emission to the atmosphere of a hazardous pollutant to which a standard applies shall be considered a modification.

(b) Upon modification, an existing source shall become a new source for each hazardous pollutant for which the rate of emission to the atmosphere increases and to which a standard applies.

(c) Emission rate shall be expressed as kg/hr of any hazardous pollutant discharged into the atmosphere for which a standard is applicable. The Administrator shall use the following to determine the emission rate:

(1) Emission factors as specified in the background information document (BID) for the applicable standard, or in the latest issue of "Compilation of Air Pollutant Emission Factors," EPA Publication No. AP-42, or other emission factors determined by the Administrator to be superior to AP-42 emission factors, in cases where use of emission factors demonstrates that the emission rate will clearly increase or clearly not increase as a result of the physical or operational change.

(2) Material balances, monitoring data, or manual emission tests in cases where use of emission factors, as referenced in paragraph (c)(1) of this section, does not demonstrate to the Administrator's satisfaction that the emission rate will clearly increase or clearly not increase as a result of the physical or operational change, or where an interested person demonstrates to the Administrator's satisfaction that there are reasonable grounds to dispute the result obtained by the Administrator using emission factors. When the emission rate is based on results from manual emission tests or monitoring data, the procedures specified in appendix C of 40 CFR part 60 shall be used to determine whether an increase in emission rate has occurred. Tests shall be conducted under such conditions as the Administrator shall specify to the owner or operator. At least three test runs must be conducted before and at least three after the physical or operational change. If the Administrator approves, the results of the emission tests required in §61.13(a) may be used for the test runs to be conducted before the physical or

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operational change. All operating parameters which may affect emissions must be held constant to the maximum degree feasible for all test runs.

(d) The following shall not, by themselves, be considered modifications under this part:

(1) Maintenance, repair, and replacement which the Administrator determines to be routine for a source category.

(2) An increase in production rate of a stationary source, if that increase can be accomplished without a capital expenditure on the stationary source.

(3) An increase in the hours of operation.

(4) Any conversion to coal that meets the requirements specified in section 111(a)(8) of the Act.

(5) The relocation or change in ownership of a stationary source. However, such activities must be reported in accordance with §61.10(c).

[50 FR 46294, Nov. 7, 1985]

§61.16 Availability of information.

The availability to the public of information provided to, or otherwise obtained by, the Administrator under this part shall be governed by part 2 of this chapter.

[38 FR 8826, Apr. 6, 1973. Redesignated at 50 FR 46294, Nov. 7, 1985]

§61.17 State authority.

(a) This part shall not be construed to preclude any State or political subdivision thereof from—

(1) Adopting and enforcing any emission limiting regulation applicable to a stationary source, provided that such emission limiting regulation is not less stringent than the standards prescribed under this part; or

(2) Requiring the owner or operator of a stationary source to obtain permits, licenses, or approvals prior to initiating construction, modification, or operation of the source.

[50 FR 46294, Nov. 7, 1985]

§61.18 Incorporations by reference.

The materials listed below are incorporated by reference in the corresponding sections noted. These incorporations by reference were approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. These materials are incorporated as they exist on the date of the approval, and a notice of any change in these materials will be published in the FEDERAL REGISTER. The materials are available for inspection at the corresponding address noted below, and at U.S. EPA's Air Docket at 1200 Pennsylvania Avenue, NW, Washington, DC 20460, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/codes_of_federal_regulations/ibr_locations.html.

(a) The following materials are available for purchase from at least one of the following addresses: American Society for Testing and Materials (ASTM) International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA, 19428-2959; or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106.

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- (1) ASTM D737-75, Standard Test Method for Air Permeability of Textile Fabrics, incorporation by reference (IBR) approved January 27, 1983 for §61.23(a).
- (2) ASTM D835-85, Standard Specification for Refined Benzene-485, IBR approved September 14, 1989 for §61.270(a).
- (3) ASTM D836-84, Standard Specification for Industrial Grade Benzene, IBR approved September 14, 1989 for §61.270(a).
- (4) ASTM D1193-77, 91, Standard Specification for Reagent Water, IBR approved for appendix B: Method 101, Section 7.1.1; Method 101A, Section 7.1.1; and Method 104, Section 7.1; Method 108, Section 7.1.3; Method 108A, Section 7.1.1; Method 108B, Section 7.1.1; Method 108C, Section 7.1.1; and Method 111, Section 7.3.
- (5) ASTM D2267-68, 78, 88, Standard Test Method for Aromatics in Light Naphthas and Aviation Gasoline by Gas Chromatography, IBR approved September 30, 1986, for §61.67(h)(1).
- (6) ASTM D2359-85a, 93, Standard Specification for Refined Benzene-535, IBR approved September 14, 1989 for §61.270(a).
- (7) ASTM D2382-76, 88, Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High-Precision Method), IBR approved June 6, 1984 for §61.245(e)(3).
- (8) ASTM D2504-67, 77, 88 (Reapproved 1993), Noncondensable Gases in C₃ and Lighter Hydrocarbon Products by Gas Chromatography, IBR approved June 6, 1984 for §61.245(e)(3).
- (9) ASTM D2879-83, Standard Test Method for Vapor Pressure—Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, IBR approved December 14, 2000 for §61.241.
- (10) ASTM D2986-71, 78, 95a, Standard Method for Evaluation of Air, Assay Media by the Monodisperse DOP (Diocetyl Phthalate) Smoke Test, IBR approved for appendix B: Method 103, Section 6.1.3.
- (11) ASTM D4420-94, Standard Test Method for Determination of Aromatics in Finished Gasoline by Gas Chromatography, IBR approved for §61.67(h)(1).
- (12) ASTM D4734-87, 96, Standard Specification for Refined Benzene-545, IBR approved September 14, 1989 for §61.270(a).
- (13) ASTM D4809-95, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter (Precision Method), IBR approved for §61.245(e)(3).
- (14) ASTM E50-82, 86, 90 (Reapproved 1995), Standard Practices for Apparatus Reagents, and Safety Precautions for Chemical Analysis of Metals, IBR approved for appendix B: Method 108C, Section 6.1.4.
- (b) The following material is available from the U.S. EPA Environmental Monitoring and Support Laboratory, Cincinnati, Ohio 45268.
- (1) Method 601, Test Method for Purgeable Halocarbons, July 1982, IBR approved September 30, 1986, for §61.67(g)(2).
- (c) The following material is available for purchase from the American National Standards Institute, 25 West 43rd Street, 4th Floor, New York, New York 10036.

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- (1) ANSI N13.1-1969, "Guide to Sampling Airborne Radioactive Materials in Nuclear Facilities." IBR approved for 61.93(b)(2)(ii) and 61.107(b)(2)(ii).
- (2) ANSI/HPS N13.1-1999 "Sampling and Monitoring Releases of Airborne Radioactive Substances from the Stacks and Ducts of Nuclear Facilities," IBR approved October 9, 2002, for §§61.93(c); 61.107(d) and Method 114, paragraph 2.1 of appendix B to 40 CFR part 61.
- (d) The following material is available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402-9325, telephone (202) 512-1800 or outside of Washington, DC area: 1-866-512-1800.
- (1) Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA Publication SW-846, Third Edition, November 1986, as amended by Revision I, December 1987, Order Number 955-001-00000-1:
- (i) Method 8020, Aromatic Volatile Organics, IBR approved March 7, 1990, for §61.355(c)(2)(iv)(A).
- (ii) Method 8021, Volatile Organic Compounds in Water by Purge and Trap Capillary Column Gas Chromatography with Photoionization and Electrolytic Conductivity Detectors in Series, IBR approved March 7, 1990, for §61.355(c)(2)(iv)(B).
- (iii) Method 8240, Gas Chromatography/Mass Spectrometry for Volatile Organics, IBR approved March 7, 1990, for §61.355(c)(2)(iv)(C).
- (iv) Method 8260, Gas Chromatography/Mass Spectrometry for Volatile Organics: Capillary Column Technique, IBR approved March 7, 1990, for §61.355(c)(2)(iv)(D).
- (e) *State and Local Requirements.* The following materials listed below are available at the Air and Radiation Docket and Information Center, 1200 Pennsylvania Avenue NW., Washington, DC 20460, telephone number (202) 566-1745.
- (1)(i) New Hampshire Regulations at Env-Sw 2100, Management and Control of Asbestos Disposal Sites Not Operated after July 9, 1981, effective February 16, 2010 (including a letter from Thomas S. Burack, Commissioner, Department of Environmental Services, State of New Hampshire, to Carol J. Holahan, Director, Office of Legislative Services, dated February 12, 2010, certifying that the enclosed rule, Env-Sw 2100, is the official version of this rule). Incorporation By Reference approved for §61.04(c).
- (ii) New Hampshire Code of Administrative Rules: Chapter Env-A 1800, Asbestos Management and Control, effective as of May 5, 2017 (certified with June 23, 2017 letter from Clark B. Freise, Assistant Commissioner, Department of Environmental Services, State of New Hampshire), as follows: Revision Notes #1 and #2; Part Env-A 1801-1807, excluding Env-A 1801.02(e), Env-A 1801.07, Env-A 1802.02, Env-A 1802.04, Env-A 1802.07-1802.09, Env-A 1802.13, Env-A 1802.15-1802.17, Env-A 1802.25, Env-A 1802.31, Env-A 1802.37, Env-A 1802.40, Env-A 1802.44, and Env-A 1803.05-1803.09; and Appendices B, C, and D; IBR approved for §61.04(c).
- [48 FR 3740, Jan. 27, 1983, as amended at 48 FR 55266, Dec. 9, 1983; 49 FR 23520, June 6, 1984; 51 FR 34914, Sept. 30, 1986; 54 FR 38073, Sept. 14, 1989; 54 FR 51704, Dec. 15, 1989; 55 FR 8341, Mar. 7, 1990; 55 FR 18331, May 2, 1990; 55 FR 22027, May 31, 1990; 55 FR 32914, Aug. 13, 1990; 65 FR 62150, Oct. 17, 2000; 65 FR 78280, Dec. 14, 2000; 67 FR 57166, Sept. 9, 2002; 69 FR 18803, Apr. 9, 2004; 78 FR 2338, Jan. 11, 2013; 83 FR 48255, Sept. 24, 2018]
- §61.19 Circumvention.
- No owner or operator shall build, erect, install, or use any article machine, equipment, process, or method, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with a visible emissions standard, and the piecemeal carrying out of an operation to avoid coverage by a standard that applies only to operations larger than a specified size. Table of Contents

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e-CFR data is current as of September 4, 2019

Title 40: Protection of Environment
PART 61—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS

Subpart M—National Emission Standard for Asbestos

AUTHORITY: 42 U.S.C. 7401, 7412, 7414, 7416, 7601.
SOURCE: 49 FR 13661, Apr. 5, 1984, unless otherwise noted.

§61.140 Applicability.

The provisions of this subpart are applicable to those sources specified in §§61.142 through 61.151, 61.154, and 61.155.

[55 FR 48414, Nov. 20, 1990]

§61.141 Definitions.

All terms that are used in this subpart and are not defined below are given the same meaning as in the Act and in subpart A of this part.

Active waste disposal site means any disposal site other than an inactive site.

Adequately wet means sufficiently mix or penetrate with liquid to prevent the release of particulates. If visible emissions are observed coming from asbestos-containing material, then that material has not been adequately wetted. However, the absence of visible emissions is not sufficient evidence of being adequately wet.

Asbestos means the asbestiform varieties of serpentinite (chrysotile), riebeckite (crocidolite), cummingtonite-grunerite, anthophyllite, and actinolite-tremolite.

Asbestos-containing waste materials means mill tailings or any waste that contains commercial asbestos and is generated by a source subject to the provisions of this subpart. This term includes filters from control devices, friable asbestos waste material, and bags or other similar packaging contaminated with commercial asbestos. As applied to demolition and renovation operations, this term also includes regulated asbestos-containing material waste and materials contaminated with asbestos including disposable equipment and clothing.

Asbestos mill means any facility engaged in converting, or in any intermediate step in converting, asbestos ore into commercial asbestos. Outside storage of asbestos material is not considered a part of the asbestos mill.

Asbestos tailings means any solid waste that contains asbestos and is a product of asbestos mining or milling operations.

Asbestos waste from control devices means any waste material that contains asbestos and is collected by a pollution control device.

Category I nonfriable asbestos-containing material (ACM) means asbestos-containing packings, gaskets, resilient floor covering, and asphalt roofing products containing more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763, section 1, Polarized Light Microscopy.

Category II nonfriable ACM means any material, excluding Category I nonfriable ACM, containing more than 1 percent asbestos as determined using the methods specified in appendix E, subpart E, 40 CFR part 763, section 1, Polarized Light Microscopy that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

Commercial asbestos means any material containing asbestos that is extracted from ore and has value because of its asbestos content.

Cutting means to penetrate with a sharp-edged instrument and includes sawing, but does not include shearing, slicing, or punching.

Demolition means the wrecking or taking out of any load-supporting structural member of a facility together with any related handling operations or the intentional burning of any facility.

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Emergency renovation operation means a renovation operation that was not planned but results from a sudden, unexpected event that, if not immediately attended to, presents a safety or public health hazard, is necessary to protect equipment from damage, or is necessary to avoid imposing an unreasonable financial burden. This term includes operations necessitated by nonroutine failures of equipment.

Fabricating means any processing (e.g., cutting, sawing, drilling) of a manufactured product that contains commercial asbestos, with the exception of processing at temporary sites (field fabricating) for the construction or restoration of facilities. In the case of friction products, fabricating includes bonding, debonding, grinding, sawing, drilling, or other similar operations performed as part of fabricating.

Facility means any institutional, commercial, public, industrial, or residential structure, installation, or building (including any structure, installation, or building containing condominiums or individual dwelling units operated as a residential cooperative, but excluding residential buildings having four or fewer dwelling units); any ship; and any active or inactive waste disposal site. For purposes of this definition, any building, structure, or installation that contains a loft used as a dwelling is not considered a residential structure, installation, or building. Any structure, installation or building that was previously subject to this subpart is not excluded, regardless of its current use or function.

Facility component means any part of a facility including equipment.

Friable asbestos material means any material containing more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763, section 1, Polarized Light Microscopy, that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. If the asbestos content is less than 10 percent as determined by a method other than point counting by polarized light microscopy (PLM), verify the asbestos content by point counting using PLM.

Fugitive source means any source of emissions not controlled by an air pollution control device.

Glove bag means a sealed compartment with attached inner gloves used for the handling of asbestos-containing materials. Properly installed and used, glove bags provide a small work area enclosure typically used for small-scale asbestos stripping operations. Information on glove-bag installation, equipment and supplies, and work practices is contained in the Occupational Safety and Health Administration's (OSHA's) final rule on occupational exposure to asbestos (appendix G to 29 CFR 1926.58).

Grinding means to reduce to powder or small fragments and includes mechanical chipping or drilling.

In poor condition means the binding of the material is losing its integrity as indicated by peeling, cracking, or crumbling of the material.

Inactive waste disposal site means any disposal site or portion of it where additional asbestos-containing waste material has not been deposited within the past year.

Installation means any building or structure or any group of buildings or structures at a single demolition or renovation site that are under the control of the same owner or operator (or owner or operator under common control).

Leak-tight means that solids or liquids cannot escape or spill out. It also means dust-tight.

Malfunction means any sudden and unavoidable failure of air pollution control equipment or process equipment or of a process to operate in a normal or usual manner so that emissions of asbestos are increased. Failures of equipment shall not be considered malfunctions if they are caused in any way by poor maintenance, careless operation, or any other preventable upset conditions, equipment breakdown, or process failure.

Manufacturing means the combining of commercial asbestos—or, in the case of woven friction products, the combining of textiles containing commercial asbestos—with any other material(s), including commercial asbestos, and the processing of this combination into a product. Chlorine production is considered a part of manufacturing.

Natural barrier means a natural object that effectively precludes or deters access. Natural barriers include physical obstacles such as cliffs, lakes, or other large bodies of water, deep and wide ravines, and mountains. Remoteness by itself is not a natural barrier.

Nonfriable asbestos-containing material means any material containing more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763, section 1, Polarized Light Microscopy, that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

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Nonscheduled renovation operation means a renovation operation necessitated by the routine failure of equipment, which is expected to occur within a given period based on past operating experience, but for which an exact date cannot be predicted.

Outside air means the air outside buildings and structures, including, but not limited to, the air under a bridge or in an open air ferry dock.

Owner or operator of a demolition or renovation activity means any person who owns, leases, operates, controls, or supervises the facility being demolished or renovated or any person who owns, leases, operates, controls, or supervises the demolition or renovation operation, or both.

Particulate asbestos material means finely divided particles of asbestos or material containing asbestos.

Planned renovation operations means a renovation operation, or a number of such operations, in which some RACM will be removed or stripped within a given period of time and that can be predicted. Individual nonscheduled operations are included if a number of such operations can be predicted to occur during a given period of time based on operating experience.

Regulated asbestos-containing material (RACM) means (a) Friable asbestos material, (b) Category I nonfriable ACM that has become friable, (c) Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading, or (d) Category II nonfriable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations regulated by this subpart.

Remove means to take out RACM or facility components that contain or are covered with RACM from any facility.

Renovation means altering a facility or one or more facility components in any way, including the stripping or removal of RACM from a facility component. Operations in which load-supporting structural members are wrecked or taken out are demolitions.

Resilient floor covering means asbestos-containing floor tile, including asphalt and vinyl floor tile, and sheet vinyl floor covering containing more than 1 percent asbestos as determined using polarized light microscopy according to the method specified in appendix E, subpart E, 40 CFR part 763, section 1, Polarized Light Microscopy.

Roadways means surfaces on which vehicles travel. This term includes public and private highways, roads, streets, parking areas, and driveways.

Strip means to take off RACM from any part of a facility or facility components.

Structural member means any load-supporting member of a facility, such as beams and load supporting walls; or any nonload-supporting member, such as ceilings and nonload-supporting walls.

Visible emissions means any emissions, which are visually detectable without the aid of instruments, coming from RACM or asbestos-containing waste material, or from any asbestos milling, manufacturing, or fabricating operation. This does not include condensed, uncombined water vapor.

Waste generator means any owner or operator of a source covered by this subpart whose act or process produces asbestos-containing waste material.

Waste shipment record means the shipping document, required to be originated and signed by the waste generator, used to track and substantiate the disposition of asbestos-containing waste material.

Working day means Monday through Friday and includes holidays that fall on any of the days Monday through Friday. [49 FR 13661, Apr. 5, 1984; 49 FR 25453, June 21, 1984, as amended by 55 FR 48414, Nov. 20, 1990; 56 FR 1669, Jan. 16, 1991; 60 FR 31920, June 19, 1995]

§61.142 Standard for asbestos mills.

(a) Each owner or operator of an asbestos mill shall either discharge no visible emissions to the outside air from that asbestos mill, including fugitive sources, or use the methods specified by §61.152 to clean emissions containing particulate asbestos material before they escape to, or are vented to, the outside air.

(b) Each owner or operator of an asbestos mill shall meet the following requirements:

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(1) Monitor each potential source of asbestos emissions from any part of the mill facility, including air cleaning devices, process equipment, and buildings that house equipment for material processing and handling, at least once each day, during daylight hours, for visible emissions to the outside air during periods of operation. The monitoring shall be by visual observation of at least 15 seconds duration per source of emissions.

(2) Inspect each air cleaning device at least once each week for proper operation and for changes that signal the potential for malfunction, including, to the maximum extent possible without dismantling other than opening the device, the presence of tears, holes, and abrasions in filter bags and for dust deposits on the clean side of bags. For air cleaning devices that cannot be inspected on a weekly basis according to this paragraph, submit to the Administrator, and revise as necessary, a written maintenance plan to include, at a minimum, the following:

- (i) Maintenance schedule.
- (ii) Recordkeeping plan.

(3) Maintain records of the results of visible emissions monitoring and air cleaning device inspections using a format similar to that shown in Figures 1 and 2 and include the following:

- (i) Date and time of each inspection.
- (ii) Presence or absence of visible emissions.
- (iii) Condition of fabric filters, including presence of any tears, holes, and abrasions.
- (iv) Presence of dust deposits on clean side of fabric filters.
- (v) Brief description of corrective actions taken, including date and time.
- (vi) Daily hours of operation for each air cleaning device.

(4) Furnish upon request, and make available at the affected facility during normal business hours for inspection by the Administrator, all records required under this section.

(5) Retain a copy of all monitoring and inspection records for at least 2 years.

(6) Submit semiannually a copy of visible emission monitoring records to the Administrator if visible emissions occurred during the report period. Semiannual reports shall be postmarked by the 30th day following the end of the six-month period.

Date of inspection (m/d/y)	Time of inspection (a.m./p.m.)	Air cleaning device or fugitive source designation or number	Visible emissions observed (yes/no) corrective action taken	Daily operating hours	Inspector's initials

Figure 1. Record of Visible Emission Monitoring
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1. Air cleaning device designation or number	_____
2. Date of inspection	_____
3. Time of inspection	_____
4. Is air cleaning device operating properly (yes/no)	_____
5. Tears, holes, or abrasions in fabric filter (yes/no)	_____
6. Dust on clean side of fabric filters (yes/no)	_____
7. Other signs of malfunctions or potential malfunctions (yes/no)	_____
8. Describe other malfunctions or signs of potential malfunctions.	_____
9. Describe corrective action(s) taken.	_____
10. Date and time corrective action taken	_____
11. Inspected by	_____
(Print/Type Name)	(Title) (Signature) (Date)
(Print/Type Name)	(Title) (Signature) (Date)

Figure 2. Air Cleaning Device Inspection Checklist
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[55 FR 48416, Nov. 20, 1990, as amended at 64 FR 7467, Feb. 12, 1999]

§61.143 Standard for roadways.

No person may construct or maintain a roadway with asbestos tailings or asbestos-containing waste material on that roadway, unless, for asbestos tailings.

- (a) It is a temporary roadway on an area of asbestos ore deposits (asbestos mine): or
- (b) It is a temporary roadway at an active asbestos mill site and is encapsulated with a resinous or bituminous binder. The encapsulated road surface must be maintained at a minimum frequency of once per year to prevent dust emissions; or
- (c) It is encapsulated in asphalt concrete meeting the specifications contained in section 401 of Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, FP-85, 1985, or their equivalent.

[55 FR 48419, Nov. 20, 1990; 56 FR 1669, Jan. 16, 1991]

§61.144 Standard for manufacturing.

- (a) *Applicability.* This section applies to the following manufacturing operations using commercial asbestos.
 - (1) The manufacture of cloth, cord, wicks, tubing, tape, twine, rope, thread, yarn, roving, lap, or other textile materials.
 - (2) The manufacture of cement products
 - (3) The manufacture of fireproofing and insulating materials.
 - (4) The manufacture of friction products.
 - (5) The manufacture of paper, millboard, and felt.
 - (6) The manufacture of floor tile.
 - (7) The manufacture of paints, coatings, caulks, adhesives, and sealants.
 - (8) The manufacture of plastics and rubber materials.
 - (9) The manufacture of chlorine utilizing asbestos diaphragm technology.

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- (10) The manufacture of shotgun shell wads.
- (11) The manufacture of asphalt concrete.
- (b) *Standard.* Each owner or operator of any of the manufacturing operations to which this section applies shall either:
 - (1) Discharge no visible emissions to the outside air from these operations or from any building or structure in which they are conducted or from any other fugitive sources; or
 - (2) Use the methods specified by §61.152 to clean emissions from these operations containing particulate asbestos material before they escape to, or are vented to, the outside air.
 - (3) Monitor each potential source of asbestos emissions from any part of the manufacturing facility, including air cleaning devices, process equipment, and buildings housing material processing and handling equipment, at least once each day during daylight hours for visible emissions to the outside air during periods of operation. The monitoring shall be by visual observation of at least 15 seconds duration per source of emissions.
 - (4) Inspect each air cleaning device at least once each week for proper operation and for changes that signal the potential for malfunctions, including, to the maximum extent possible without dismantling other than opening the device, the presence of tears, holes, and abrasions in filter bags and for dust deposits on the clean side of bags. For air cleaning devices that cannot be inspected on a weekly basis according to this paragraph, submit to the Administrator, and revise as necessary, a written maintenance plan to include, at a minimum, the following:
 - (i) Maintenance schedule.
 - (ii) Recordkeeping plan.
 - (5) Maintain records of the results of visible emission monitoring and air cleaning device inspections using a format similar to that shown in Figures 1 and 2 and include the following.
 - (i) Date and time of each inspection.
 - (ii) Presence or absence of visible emissions.
 - (iii) Condition of fabric filters, including presence of any tears, holes and abrasions.
 - (iv) Presence of dust deposits on clean side of fabric filters.
 - (v) Brief description of corrective actions taken, including date and time.
 - (vi) Daily hours of operation for each air cleaning device.
 - (6) Furnish upon request, and make available at the affected facility during normal business hours for inspection by the Administrator, all records required under this section.
 - (7) Retain a copy of all monitoring and inspection records for at least 2 years.
 - (8) Submit semiannually a copy of the visible emission monitoring records to the Administrator if visible emission occurred during the report period. Semiannual reports shall be postmarked by the 30th day following the end of the six-month period.

[49 FR 13661, Apr. 5, 1984, as amended at 55 FR 48419, Nov. 20, 1990; 56 FR 1669, Jan. 16, 1991; 64 FR 7467, Feb. 12, 1999]

§61.145 Standard for demolition and renovation.

- (a) *Applicability.* To determine which requirements of paragraphs (a), (b), and (c) of this section apply to the owner or operator of a demolition or renovation activity and prior to the commencement of the demolition or renovation, thoroughly inspect the affected facility or part of the facility where the demolition or renovation operation will occur for the presence of asbestos, including Category I and Category II nonfriable ACM. The requirements of paragraphs (b) and (c) of this section apply to each owner or operator of a demolition or renovation activity, including the removal of RACM as follows:
 - (1) In a facility being demolished, all the requirements of paragraphs (b) and (c) of this section apply, except as provided in paragraph (a)(3) of this section, if the combined amount of RACM is
 - (i) At least 80 linear meters (260 linear feet) on pipes or at least 15 square meters (160 square feet) on other facility components, or
 - (ii) At least 1 cubic meter (35 cubic feet) off facility components where the length or area could not be measured previously.
 - (2) In a facility being demolished, only the notification requirements of paragraphs (b)(1), (2), (3)(i) and (iv), and (4)(i) through (vii) and (4)(ix) and (xvi) of this section apply, if the combined amount of RACM is
 - (i) Less than 80 linear meters (260 linear feet) on pipes and less than 15 square meters (160 square feet) on other facility components, and

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(ii) Less than one cubic meter (35 cubic feet) off facility components where the length or area could not be measured previously or there is no asbestos.

(3) If the facility is being demolished under an order of a State or local government agency, issued because the facility is structurally unsound and in danger of imminent collapse, only the requirements of paragraphs (b)(1), (b)(2), (b)(3)(iii), (b)(4) (except (b)(4)(viii)), (b)(5), and (c)(4) through (c)(9) of this section apply.

(4) In a facility being renovated, including any individual nonscheduled renovation operation, all the requirements of paragraphs (b) and (c) of this section apply if the combined amount of RACM to be stripped, removed, dislodged, cut, drilled, or similarly disturbed is

(i) At least 80 linear meters (260 linear feet) on pipes or at least 15 square meters (160 square feet) on other facility components, or

(ii) At least 1 cubic meter (35 cubic feet) off facility components where the length or area could not be measured previously.

(iii) To determine whether paragraph (a)(4) of this section applies to planned renovation operations involving individual nonscheduled operations, predict the combined additive amount of RACM to be removed or stripped during a calendar year of January 1 through December 31.

(iv) To determine whether paragraph (a)(4) of this section applies to emergency renovation operations, estimate the combined amount of RACM to be removed or stripped as a result of the sudden, unexpected event that necessitated the renovation.

(5) Owners or operators of demolition and renovation operations are exempt from the requirements of §§61.05(a), 61.07, and 61.09.

(b) *Notification requirements.* Each owner or operator of a demolition or renovation activity to which this section applies shall:

(1) Provide the Administrator with written notice of intention to demolish or renovate. Delivery of the notice by U.S. Postal Service, commercial delivery service, or hand delivery is acceptable.

(2) Update notice, as necessary, including when the amount of asbestos affected changes by at least 20 percent.

(3) Postmark or deliver the notice as follows:

(i) At least 10 working days before asbestos stripping or removal work or any other activity begins (such as site preparation that would break up, dislodge or similarly disturb asbestos material), if the operation is described in paragraphs (a) (1) and (4) (except (a)(4)(iii) and (a)(4)(iv)) of this section. If the operation is as described in paragraph (a)(2) of this section, notification is required 10 working days before demolition begins.

(ii) At least 10 working days before the end of the calendar year preceding the year for which notice is being given for renovations described in paragraph (a)(4)(iii) of this section.

(iii) As early as possible before, but not later than, the following working day if the operation is a demolition ordered according to paragraph (a)(3) of this section or, if the operation is a renovation described in paragraph (a)(4)(iv) of this section.

(iv) For asbestos stripping or removal work in a demolition or renovation operation, described in paragraphs (a) (1) and (4) (except (a)(4)(iii) and (a)(4)(iv)) of this section, and for a demolition described in paragraph (a)(2) of this section, that will begin on a date other than the one contained in the original notice, notice of the new start date must be provided to the Administrator as follows:

(A) When the asbestos stripping or removal operation or demolition operation covered by this paragraph will begin after the date contained in the notice,

(1) Notify the Administrator of the new start date by telephone as soon as possible before the original start date, and

(2) Provide the Administrator with a written notice of the new start date as soon as possible before, and no later than, the original start date. Delivery of the updated notice by the U.S. Postal Service, commercial delivery service, or hand delivery is acceptable.

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(B) When the asbestos stripping or removal operation or demolition operation covered by this paragraph will begin on a date earlier than the original start date,

(1) Provide the Administrator with a written notice of the new start date at least 10 working days before asbestos stripping or removal work begins.

(2) For demolitions covered by paragraph (a)(2) of this section, provide the Administrator written notice of a new start date at least 10 working days before commencement of demolition. Delivery of updated notice by U.S. Postal Service, commercial delivery service, or hand delivery is acceptable.

(C) In no event shall an operation covered by this paragraph begin on a date other than the date contained in the written notice of the new start date.

(4) Include the following in the notice:

(i) An indication of whether the notice is the original or a revised notification.

(ii) Name, address, and telephone number of both the facility owner and operator and the asbestos removal contractor owner or operator.

(iii) Type of operation: demolition or renovation.

(iv) Description of the facility or affected part of the facility including the size (square meters [square feet] and number of floors), age, and present and prior use of the facility.

(v) Procedure, including analytical methods, employed to detect the presence of RACM and Category I and Category II nonfriable ACM.

(vi) Estimate of the approximate amount of RACM to be removed from the facility in terms of length of pipe in linear meters (linear feet), surface area in square meters (square feet) on other facility components, or volume in cubic meters (cubic feet) if off the facility components. Also, estimate the approximate amount of Category I and Category II nonfriable ACM in the affected part of the facility that will not be removed before demolition.

(vii) Location and street address (including building number or name and floor or room number, if appropriate), city, county, and state, of the facility being demolished or renovated.

(viii) Scheduled starting and completion dates of asbestos removal work (or any other activity, such as site preparation that would break up, dislodge, or similarly disturb asbestos material) in a demolition or renovation; planned renovation operations involving individual nonscheduled operations shall only include the beginning and ending dates of the report period as described in paragraph (a)(4)(iii) of this section.

(ix) Scheduled starting and completion dates of demolition or renovation.

(x) Description of planned demolition or renovation work to be performed and method(s) to be employed, including demolition or renovation techniques to be used and description of affected facility components.

(xi) Description of work practices and engineering controls to be used to comply with the requirements of this subpart, including asbestos removal and waste-handling emission control procedures.

(xii) Name and location of the waste disposal site where the asbestos-containing waste material will be deposited.

(xiii) A certification that at least one person trained as required by paragraph (c)(8) of this section will supervise the stripping and removal described by this notification. This requirement shall become effective 1 year after promulgation of this regulation.

(xiv) For facilities described in paragraph (a)(3) of this section, the name, title, and authority of the State or local government representative who has ordered the demolition, the date that the order was issued, and the date on which the demolition was ordered to begin. A copy of the order shall be attached to the notification.

(xv) For emergency renovations described in paragraph (a)(4)(iv) of this section, the date and hour that the emergency occurred, a description of the sudden, unexpected event, and an explanation of how the event caused an unsafe condition, or would cause equipment damage or an unreasonable financial burden.

(xvi) Description of procedures to be followed in the event that unexpected RACM is found or Category II nonfriable ACM becomes crumbled, pulverized, or reduced to powder.

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(xvii) Name, address, and telephone number of the waste transporter.

(5) The information required in paragraph (b)(4) of this section must be reported using a form similar to that shown in Figure 3.

(c) *Procedures for asbestos emission control.* Each owner or operator of a demolition or renovation activity to whom this paragraph applies, according to paragraph (a) of this section, shall comply with the following procedures:

(1) Remove all RACM from a facility being demolished or renovated before any activity begins that would break up, dislodge, or similarly disturb the material or preclude access to the material for subsequent removal. RACM need not be removed before demolition if:

(i) It is Category I nonfriable ACM that is not in poor condition and is not friable.

(ii) It is on a facility component that is encased in concrete or other similarly hard material and is adequately wet whenever exposed during demolition; or

(iii) It was not accessible for testing and was, therefore, not discovered until after demolition began and, as a result of the demolition, the material cannot be safely removed. If not removed for safety reasons, the exposed RACM and any asbestos-contaminated debris must be treated as asbestos-containing waste material and adequately wet at all times until disposed of.

(iv) They are Category II nonfriable ACM and the probability is low that the materials will become crumbled, pulverized, or reduced to powder during demolition.

(2) When a facility component that contains, is covered with, or is coated with RACM is being taken out of the facility as a unit or in sections:

(i) Adequately wet all RACM exposed during cutting or disjoining operations; and

(ii) Carefully lower each unit or section to the floor and to ground level, not dropping, throwing, sliding, or otherwise damaging or disturbing the RACM.

(3) When RACM is stripped from a facility component while it remains in place in the facility, adequately wet the RACM during the stripping operation.

(i) In renovation operations, wetting is not required if:

(A) The owner or operator has obtained prior written approval from the Administrator based on a written application that wetting to comply with this paragraph would unavoidably damage equipment or present a safety hazard; and

(B) The owner or operator uses one of the following emission control methods:

(1) A local exhaust ventilation and collection system designed and operated to capture the particulate asbestos material produced by the stripping and removal of the asbestos materials. The system must exhibit no visible emissions to the outside air or be designed and operated in accordance with the requirements in §61.152.

(2) A glove-bag system designed and operated to contain the particulate asbestos material produced by the stripping of the asbestos materials.

(3) Leak-tight wrapping to contain all RACM prior to dismantlement.

(ii) In renovation operations where wetting would result in equipment damage or a safety hazard, and the methods allowed in paragraph (c)(3)(i) of this section cannot be used, another method may be used after obtaining written approval from the Administrator based upon a determination that it is equivalent to wetting in controlling emissions or to the methods allowed in paragraph (c)(3)(i) of this section.

(iii) A copy of the Administrator's written approval shall be kept at the worksite and made available for inspection.

(4) After a facility component covered with, coated with, or containing RACM has been taken out of the facility as a unit or in sections pursuant to paragraph (c)(2) of this section, it shall be stripped or contained in leak-tight wrapping, except as described in paragraph (c)(5) of this section. If stripped, either:

(i) Adequately wet the RACM during stripping; or

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(ii) Use a local exhaust ventilation and collection system designed and operated to capture the particulate asbestos material produced by the stripping. The system must exhibit no visible emissions to the outside air or be designed and operated in accordance with the requirements in §61.152.

(5) For large facility components such as reactor vessels, large tanks, and steam generators, but not beams (which must be handled in accordance with paragraphs (c)(2), (3), and (4) of this section), the RACM is not required to be stripped if the following requirements are met:

(i) The component is removed, transported, stored, disposed of, or reused without disturbing or damaging the RACM.

(ii) The component is encased in a leak-tight wrapping.

(iii) The leak-tight wrapping is labeled according to §61.149(d)(1)(i), (ii), and (iii) during all loading and unloading operations and during storage.

(6) For all RACM, including material that has been removed or stripped:

(i) Adequately wet the material and ensure that it remains wet until collected and contained or treated in preparation for disposal in accordance with §61.150; and

(ii) Carefully lower the material to the ground and floor, not dropping, throwing, sliding, or otherwise damaging or disturbing the material.

(iii) Transport the material to the ground via leak-tight chutes or containers if it has been removed or stripped more than 50 feet above ground level and was not removed as units or in sections.

(iv) RACM contained in leak-tight wrapping that has been removed in accordance with paragraphs (c)(4) and (c)(3)(i)(B)(3) of this section need not be wetted.

(7) When the temperature at the point of wetting is below 0 °C (32 °F):

(i) The owner or operator need not comply with paragraph (c)(2)(i) and the wetting provisions of paragraph (c)(3) of this section.

(ii) The owner or operator shall remove facility components containing, coated with, or covered with RACM as units or in sections to the maximum extent possible.

(iii) During periods when wetting operations are suspended due to freezing temperatures, the owner or operator must record the temperature in the area containing the facility components at the beginning, middle, and end of each workday and keep daily temperature records available for inspection by the Administrator during normal business hours at the demolition or renovation site. The owner or operator shall retain the temperature records for at least 2 years.

(8) Effective 1 year after promulgation of this regulation, no RACM shall be stripped, removed, or otherwise handled or disturbed at a facility regulated by this section unless at least one on-site representative, such as a foreman or management-level person or other authorized representative, trained in the provisions of this regulation and the means of complying with them, is present. Every 2 years, the trained on-site individual shall receive refresher training in the provisions of this regulation. The required training shall include as a minimum: applicability; notifications; material identification; control procedures for removals including, at least, wetting, local exhaust ventilation, negative pressure enclosures, glove-bag procedures, and High Efficiency Particulate Air (HEPA) filters; waste disposal work practices; reporting and recordkeeping; and asbestos hazards and worker protection. Evidence that the required training has been completed shall be posted and made available for inspection by the Administrator at the demolition or renovation site.

(9) For facilities described in paragraph (a)(3) of this section, adequately wet the portion of the facility that contains RACM during the wrecking operation.

(10) If a facility is demolished by intentional burning, all RACM including Category I and Category II nonfriable ACM must be removed in accordance with the NESHAP before burning.

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Figure 2. Identification of Demolition and Renovation
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Figure 3. Identification of Demolition and Renovation
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[55 FR 48419, Nov. 20, 1990; 56 FR 1669, Jan. 16, 1991]
§61.146 Standard for spraying.

The owner or operator of an operation in which asbestos-containing materials are spray applied shall comply with the following requirements:

(a) For spray-on application on buildings, structures, pipes, and conduits, do not use material containing more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763, section 1, Polarized Light Microscopy, except as provided in paragraph (c) of this section.

(b) For spray-on application of materials that contain more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763, section 1, Polarized Light Microscopy, on equipment and machinery, except as provided in paragraph (c) of this section:

(1) Notify the Administrator at least 20 days before beginning the spraying operation. Include the following information in the notice:

- (i) Name and address of owner or operator.
- (ii) Location of spraying operation.
- (iii) Procedures to be followed to meet the requirements of this paragraph.

(2) Discharge no visible emissions to the outside air from spray-on application of the asbestos-containing material or use the methods specified by §61.152 to clean emissions containing particulate asbestos material before they escape to, or are vented to, the outside air.

(c) The requirements of paragraphs (a) and (b) of this section do not apply to the spray-on application of materials where the asbestos fibers in the materials are encapsulated with a bituminous or resinous binder during spraying and the materials are not friable after drying.

(d) Owners or operators of sources subject to this paragraph are exempt from the requirements of §§61.05(a), 61.07 and 61.09.

[49 FR 13661, Apr. 5, 1984. Redesignated and amended at 55 FR 48424, Nov. 20, 1990; 60 FR 31920, June 19, 1995]
§61.147 Standard for fabricating.

(a) *Applicability.* This section applies to the following fabricating operations using commercial asbestos:

- (1) The fabrication of cement building products.
- (2) The fabrication of friction products, except those operations that primarily install asbestos friction materials on motor vehicles.
- (3) The fabrication of cement or silicate board for ventilation hoods; ovens; electrical panels; laboratory furniture, bulkheads, partitions, and ceilings for marine construction; and flow control devices for the molten metal industry.

(b) *Standard.* Each owner or operator of any of the fabricating operations to which this section applies shall either:

- (1) Discharge no visible emissions to the outside air from any of the operations or from any building or structure in which they are conducted or from any other fugitive sources; or
- (2) Use the methods specified by §61.152 to clean emissions containing particulate asbestos material before they escape to, or are vented to, the outside air.

(3) Monitor each potential source of asbestos emissions from any part of the fabricating facility, including air cleaning devices, process equipment, and buildings that house equipment for material processing and handling, at least once each day, during daylight hours, for visible emissions to the outside air during periods of operation. The monitoring shall be by visual observation of at least 15 seconds duration per source of emissions.

(4) Inspect each air cleaning device at least once each week for proper operation and for changes that signal the potential for malfunctions, including, to the maximum extent possible without dismantling other than opening the device, the presence of tears, holes, and abrasions in filter bags and for dust deposits on the clean side of bags. For air cleaning devices

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that cannot be inspected on a weekly basis according to this paragraph, submit to the Administrator, and revise as necessary, a written maintenance plan to include, at a minimum, the following:

- (i) Maintenance schedule.
- (ii) Recordkeeping plan.

(5) Maintain records of the results of visible emission monitoring and air cleaning device inspections using a format similar to that shown in Figures 1 and 2 and include the following:

- (i) Date and time of each inspection.
- (ii) Presence or absence of visible emissions.
- (iii) Condition of fabric filters, including presence of any tears, holes, and abrasions.
- (iv) Presence of dust deposits on clean side of fabric filters.
- (v) Brief description of corrective actions taken, including date and time.
- (vi) Daily hours of operation for each air cleaning device.

(6) Furnish upon request and make available at the affected facility during normal business hours for inspection by the Administrator, all records required under this section

(7) Retain a copy of all monitoring and inspection records for at least 2 years.

(8) Submit semiannually a copy of the visible emission monitoring records to the Administrator if visible emission occurred during the report period. Semiannual reports shall be postmarked by the 30th day following the end of the six-month period.

[49 FR 13661, Apr. 5, 1984. Redesignated and amended at 55 FR 48424, Nov. 20, 1991; 64 FR 7467, Feb. 12, 1999]

§61.148 Standard for insulating materials.

No owner or operator of a facility may install or reinstall on a facility component any insulating materials that contain commercial asbestos if the materials are either molded and friable or wet-applied and friable after drying. The provisions of this section do not apply to spray-applied insulating materials regulated under §61.146.

[55 FR 48424, Nov. 20, 1990]

§61.149 Standard for waste disposal for asbestos mills.

Each owner or operator of any source covered under the provisions of §61.142 shall:

(a) Deposit all asbestos-containing waste material at a waste disposal site operated in accordance with the provisions of §61.154; and

(b) Discharge no visible emissions to the outside air from the transfer of control device asbestos waste to the tailings conveyor, or use the methods specified by §61.152 to clean emissions containing particulate asbestos material before they escape to, or are vented to, the outside air. Dispose of the asbestos waste from control devices in accordance with §61.150(a) or paragraph (c) of this section; and

(c) Discharge no visible emissions to the outside air during the collection, processing, packaging, or on-site transporting of any asbestos-containing waste material, or use one of the disposal methods specified in paragraphs (c) (1) or (2) of this section, as follows:

(1) Use a wetting agent as follows:

(i) Adequately mix all asbestos-containing waste material with a wetting agent recommended by the manufacturer of the agent to effectively wet dust and tailings, before depositing the material at a waste disposal site. Use the agent as recommended for the particular dust by the manufacturer of the agent.

(ii) Discharge no visible emissions to the outside air from the wetting operation or use the methods specified by §61.152 to clean emissions containing particulate asbestos material before they escape to, or are vented to, the outside air.

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(iii) Wetting may be suspended when the ambient temperature at the waste disposal site is less than -9.5°C (15°F), as determined by an appropriate measurement method with an accuracy of $\pm 1^{\circ}\text{C}$ ($\pm 2^{\circ}\text{F}$). During periods when wetting operations are suspended, the temperature must be recorded at least at hourly intervals, and records must be retained for at least 2 years in a form suitable for inspection.

(2) Use an alternative emission control and waste treatment method that has received prior written approval by the Administrator. To obtain approval for an alternative method, a written application must be submitted to the Administrator demonstrating that the following criteria are met:

- (i) The alternative method will control asbestos emissions equivalent to currently required methods.
- (ii) The suitability of the alternative method for the intended application.
- (iii) The alternative method will not violate other regulations.
- (iv) The alternative method will not result in increased water pollution, land pollution, or occupational hazards.
- (d) When waste is transported by vehicle to a disposal site:

(1) Mark vehicles used to transport asbestos-containing waste material during the loading and unloading of the waste so that the signs are visible. The markings must:

- (i) Be displayed in such a manner and location that a person can easily read the legend.
- (ii) Conform to the requirements for 51 cm \times 36 cm (20 in \times 14 in) upright format signs specified in 29 CFR 1910.145(d)(4) and this paragraph; and

(iii) Display the following legend in the lower panel with letter sizes and styles of a visibility at least equal to those specified in this paragraph.

Legend

DANGER

ASBESTOS DUST HAZARD

CANCER AND LUNG DISEASE HAZARD

Authorized Personnel Only

Notation

2.5 cm (1 inch) Sans Serif, Gothic or Block

2.5 cm (1 inch) Sans Serif, Gothic or Block

1.9 cm (¾ inch) Sans Serif, Gothic or Block

14 Point Gothic

Spacing between any two lines must be at least equal to the height of the upper of the two lines.

(2) For off-site disposal, provide a copy of the waste shipment record, described in paragraph (e)(1) of this section, to the disposal site owner or operator at the same time as the asbestos-containing waste material is delivered to the disposal site.

(e) For all asbestos-containing waste material transported off the facility site:

(1) Maintain asbestos waste shipment records, using a form similar to that shown in Figure 4, and include the following information:

(i) The name, address, and telephone number of the waste generator.

(ii) The name and address of the local, State, or EPA Regional agency responsible for administering the asbestos NESHAP program.

(iii) The quantity of the asbestos-containing waste material in cubic meters (cubic yards).

(iv) The name and telephone number of the disposal site operator.

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(v) The name and physical site location of the disposal site.

(vi) The date transported.

(vii) The name, address, and telephone number of the transporter(s).

(viii) A certification that the contents of this consignment are fully and accurately described by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

(2) For waste shipments where a copy of the waste shipment record, signed by the owner or operator of the designated disposal site, is not received by the waste generator within 35 days of the date the waste was accepted by the initial transporter, contact the transporter and/or the owner or operator of the designated disposal site to determine the status of the waste shipment.

(3) Report in writing to the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the waste generator if a copy of the waste shipment record, signed by the owner or operator of the designated waste disposal site, is not received by the waste generator within 45 days of the date the waste was accepted by the initial transporter. Include in the report the following information:

(i) A copy of the waste shipment record for which a confirmation of delivery was not received, and

(ii) A cover letter signed by the waste generator explaining the efforts taken to locate the asbestos waste shipment and the results of those efforts.

(4) Retain a copy of all waste shipment records, including a copy of the waste shipment record signed by the owner or operator of the designated waste disposal site, for at least 2 years.

(f) Furnish upon request, and make available for inspection by the Administrator, all records required under this section.

Generator	1. Waste site name and mailing address		Operator's name	Operator's telephone no.
	2. Operator's name and address		Operator's telephone no.	
	3. Waste disposal site (MOS) name, mailing address, and physical site location		MOS phone no.	
	4. Name and address of responsible agency			
Generator	5. Description of materials		6. Containers No. Type	7. Total quantity in [] [] []
	8. Special handling instructions and additional information			
	9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.			
	Printed/typed name & title		Signature	Month Day Year
Transporter	10. Transporter 1 (Acknowledgment of receipt of materials)			
	Printed/typed name & title		Signature	Month Day Year
	Address and telephone no.			
	11. Transporter 2 (Acknowledgment of receipt of materials)			
Disposal Site	Printed/typed name & title		Signature	Month Day Year
	Address and telephone no.			
	12. Discrepancy indication space			
	13. Waste disposal site name or operator: Certification of receipt of asbestos material covered by this manifest receipt is noted in item 11.			
Printed/typed name & title		Signature	Month Day Year	(Continued)

Figure 4. Waste Shipment Record
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INSTRUCTIONS	
Waste Generator Section (Items 1-9)	
1.	Enter the name of the facility at which asbestos waste is generated and the address where the facility is located. In the appropriate spaces, also enter the name of the owner of the facility and the owner's phone number.
2.	If a demolition or renovation, enter the name and address of the company and authorized agent responsible for performing the asbestos removal. In the appropriate spaces, also enter the phone number of the operator.
3.	Enter the name, address, and physical site location of the waste disposal site (MOS) that will be receiving the asbestos materials. In the appropriate spaces, also enter the phone number of the MOS. Enter "on-site" if the waste will be disposed of on the generator's property.
4.	Provide the name and address of the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program.
5.	Indicate the types of asbestos waste materials generated. If from a demolition or renovation, indicate the amount of asbestos that is: <ul style="list-style-type: none"> - Friable asbestos material - Nonfriable asbestos material
6.	Enter the number of containers used to transport the asbestos materials listed in item 5. Also enter one of the following container codes used in transporting each type of asbestos material (specify any other type of container used if not listed below): <ul style="list-style-type: none"> DM - Metal drums, barrels DP - Plastic drums, barrels BA - 5 mil plastic bags or wrapping
7.	Enter the quantity of each type of asbestos material removed in units of cubic meters (cubic yards).
8.	Use this space to indicate special transportation, treatment, storage or disposal or Bill of Lading information. If an alternate waste disposal site is designated, note it here. Emergency response telephone numbers or similar information may be included here.
9.	The authorized agent of the waste generator must read and then sign and date this certification. The date is the date of receipt by transporter.
NOTE: The waste generator must retain a copy of this form.	
(Continued)	

Figure 4. Waste Shipment Record
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Transporter Section (Items 10 & 11)	
10. & 11.	Enter name, address, and telephone number of each transporter used, if applicable. Print or type the full name and title of person accepting responsibility and acknowledging receipt of materials as listed on this waste shipment record for transport. Enter date of receipt and signature.
NOTE: The transporter must retain a copy of this form.	
Disposal Site Section (Items 12 & 13)	
12.	The authorized representative of the MOS must note in this space any discrepancy between waste described on this manifest and waste actually received as well as any inventory enclosed or contained waste. Any rejected materials should be listed and identification of those materials provided. A site that converts asbestos-containing waste material to nonhazardous material is considered a MOS.
13.	The signature (by hand) of the authorized MOS agent indicates acceptance and agreement with statements on this manifest except as noted in item 12. The date is the date of signature and receipt of shipment.
NOTE: The MOS must retain a completed copy of this form. The MOS must also send a completed copy to the operator listed in item 2.	

Figure 4. Waste Shipment Record
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\$61.150 Standard for waste disposal for manufacturing, fabricating, demolition, renovation, and spraying operations.

Each owner or operator of any source covered under the provisions of §§61.144, 61.145, 61.146, and 61.147 shall comply with the following provisions:

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(a) Discharge no visible emissions to the outside air during the collection, processing (including incineration), packaging, or transporting of any asbestos-containing waste material generated by the source, or use one of the emission control and waste treatment methods specified in paragraphs (a) (1) through (4) of this section.

(1) Adequately wet asbestos-containing waste material as follows:

(i) Mix control device asbestos waste to form a slurry; adequately wet other asbestos-containing waste material; and

(ii) Discharge no visible emissions to the outside air from collection, mixing, wetting, and handling operations, or use the methods specified by §61.152 to clean emissions containing particulate asbestos material before they escape to, or are vented to, the outside air; and

(iii) After wetting, seal all asbestos-containing waste material in leak-tight containers while wet; or, for materials that will not fit into containers without additional breaking, put materials into leak-tight wrapping; and

(iv) Label the containers or wrapped materials specified in paragraph (a)(1)(iii) of this section using warning labels specified by Occupational Safety and Health Standards of the Department of Labor, Occupational Safety and Health Administration (OSHA) under 29 CFR 1910.1001(j)(4) or 1926.1101(k)(8). The labels shall be printed in letters of sufficient size and contrast so as to be readily visible and legible.

(v) For asbestos-containing waste material to be transported off the facility site, label containers or wrapped materials with the name of the waste generator and the location at which the waste was generated.

(2) Process asbestos-containing waste material into nonfriable forms as follows:

(i) Form all asbestos-containing waste material into nonfriable pellets or other shapes;

(ii) Discharge no visible emissions to the outside air from collection and processing operations, including incineration, or use the method specified by §61.152 to clean emissions containing particulate asbestos material before they escape to, or are vented to, the outside air.

(3) For facilities demolished where the RACM is not removed prior to demolition according to §§61.145(c)(1) (i), (ii), (iii), and (iv) or for facilities demolished according to §61.145(c)(9), adequately wet asbestos-containing waste material at all times after demolition and keep wet during handling and loading for transport to a disposal site. Asbestos-containing waste materials covered by this paragraph do not have to be sealed in leak-tight containers or wrapping but may be transported and disposed of in bulk.

(4) Use an alternative emission control and waste treatment method that has received prior approval by the Administrator according to the procedure described in §61.149(e)(2).

(5) As applied to demolition and renovation, the requirements of paragraph (a) of this section do not apply to Category I nonfriable ACM waste and Category II nonfriable ACM waste that did not become crumbled, pulverized, or reduced to powder.

(b) All asbestos-containing waste material shall be deposited as soon as is practical by the waste generator at:

(1) A waste disposal site operated in accordance with the provisions of §61.154, or

(2) An EPA-approved site that converts RACM and asbestos-containing waste material into nonasbestos (asbestos-free) material according to the provisions of §61.155.

(3) The requirements of paragraph (b) of this section do not apply to Category I nonfriable ACM that is not RACM.

(c) Mark vehicles used to transport asbestos-containing waste material during the loading and unloading of waste so that the signs are visible. The markings must conform to the requirements of §§61.149(d)(1) (i), (ii), and (iii).

(d) For all asbestos-containing waste material transported off the facility site:

(1) Maintain waste shipment records, using a form similar to that shown in Figure 4, and include the following information:

(i) The name, address, and telephone number of the waste generator.

(ii) The name and address of the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program.

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(iii) The approximate quantity in cubic meters (cubic yards).

(iv) The name and telephone number of the disposal site operator.

(v) The name and physical site location of the disposal site.

(vi) The date transported.

(vii) The name, address, and telephone number of the transporter(s).

(viii) A certification that the contents of this consignment are fully and accurately described by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

(2) Provide a copy of the waste shipment record, described in paragraph (d)(1) of this section, to the disposal site owners or operators at the same time as the asbestos-containing waste material is delivered to the disposal site.

(3) For waste shipments where a copy of the waste shipment record, signed by the owner or operator of the designated disposal site, is not received by the waste generator within 35 days of the date the waste was accepted by the initial transporter, contact the transporter and/or the owner or operator of the designated disposal site to determine the status of the waste shipment.

(4) Report in writing to the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the waste generator if a copy of the waste shipment record, signed by the owner or operator of the designated waste disposal site, is not received by the waste generator within 45 days of the date the waste was accepted by the initial transporter. Include in the report the following information:

(i) A copy of the waste shipment record for which a confirmation of delivery was not received, and

(ii) A cover letter signed by the waste generator explaining the efforts taken to locate the asbestos waste shipment and the results of those efforts.

(5) Retain a copy of all waste shipment records, including a copy of the waste shipment record signed by the owner or operator of the designated waste disposal site, for at least 2 years.

(e) Furnish upon request, and make available for inspection by the Administrator, all records required under this section.

[55 FR 48429, Nov. 20, 1990; 56 FR 1669, Jan. 16, 1991, as amended at 68 FR 54793, Sept. 18, 2003]

§61.151 Standard for inactive waste disposal sites for asbestos mills and manufacturing and fabricating operations.

Each owner or operator of any inactive waste disposal site that was operated by sources covered under §61.142, 61.144, or 61.147 and received deposits of asbestos-containing waste material generated by the sources, shall:

(a) Comply with one of the following:

(1) Either discharge no visible emissions to the outside air from an inactive waste disposal site subject to this paragraph; or

(2) Cover the asbestos-containing waste material with at least 15 centimeters (6 inches) of compacted nonasbestos-containing material, and grow and maintain a cover of vegetation on the area adequate to prevent exposure of the asbestos-containing waste material. In desert areas where vegetation would be difficult to maintain, at least 8 additional centimeters (3 inches) of well-graded, nonasbestos crushed rock may be placed on top of the final cover instead of vegetation and maintained to prevent emissions; or

(3) Cover the asbestos-containing waste material with at least 60 centimeters (2 feet) of compacted nonasbestos-containing material, and maintain it to prevent exposure of the asbestos-containing waste; or

(4) For inactive waste disposal sites for asbestos tailings, a resinous or petroleum-based dust suppression agent that effectively binds dust to control surface air emissions may be used instead of the methods in paragraphs (a) (1), (2), and (3) of this section. Use the agent in the manner and frequency recommended for the particular asbestos tailings by the manufacturer of the dust suppression agent to achieve and maintain dust control. Obtain prior written approval of the Administrator to use other equally effective dust suppression agents. For purposes of this paragraph, any used, spent, or other waste oil is not considered a dust suppression agent.

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(b) Unless a natural barrier adequately deters access by the general public, install and maintain warning signs and fencing as follows, or comply with paragraph (a)(2) or (a)(3) of this section.

(1) Display warning signs at all entrances and at intervals of 100 m (328 ft) or less along the property line of the site or along the perimeter of the sections of the site where asbestos-containing waste material was deposited. The warning signs must:

- (i) Be posted in such a manner and location that a person can easily read the legend; and
- (ii) Conform to the requirements for 51 cm×36 cm (20"×14") upright format signs specified in 29 CFR 1910.145(d)(4) and this paragraph; and
- (iii) Display the following legend in the lower panel with letter sizes and styles of a visibility at least equal to those specified in this paragraph.

Legend	Notation
Asbestos Waste Disposal Site	2.5 cm (1 inch) Sans Serif, Gothic or Block
Do Not Create Dust	1.9 cm (3/4 inch) Sans Serif, Gothic or Block
Breathing Asbestos is Hazardous to Your Health	14 Point Gothic.

Spacing between any two lines must be at least equal to the height of the upper of the two lines.

- (2) Fence the perimeter of the site in a manner adequate to deter access by the general public.
- (3) When requesting a determination on whether a natural barrier adequately deters public access, supply information enabling the Administrator to determine whether a fence or a natural barrier adequately deters access by the general public.

(c) The owner or operator may use an alternative control method that has received prior approval of the Administrator rather than comply with the requirements of paragraph (a) or (b) of this section.

(d) Notify the Administrator in writing at least 45 days prior to excavating or otherwise disturbing any asbestos-containing waste material that has been deposited at a waste disposal site under this section, and follow the procedures specified in the notification. If the excavation will begin on a date other than the one contained in the original notice, notice of the new start date must be provided to the Administrator at least 10 working days before excavation begins and in no event shall excavation begin earlier than the date specified in the original notification. Include the following information in the notice:

- (1) Scheduled starting and completion dates.
 - (2) Reason for disturbing the waste.
 - (3) Procedures to be used to control emissions during the excavation, storage, transport, and ultimate disposal of the excavated asbestos-containing waste material. If deemed necessary, the Administrator may require changes in the emission control procedures to be used.
 - (4) Location of any temporary storage site and the final disposal site.
- (e) Within 60 days of a site becoming inactive and after the effective date of this subpart, record, in accordance with State law, a notation on the deed to the facility property and on any other instrument that would normally be examined during a title search; this notation will in perpetuity notify any potential purchaser of the property that:
- (1) The land has been used for the disposal of asbestos-containing waste material;
 - (2) The survey plot and record of the location and quantity of asbestos-containing waste disposed of within the disposal site required in §61.154(f) have been filed with the Administrator; and
 - (3) The site is subject to 40 CFR part 61, subpart M.

[49 FR 13661, Apr. 5, 1984, as amended at 53 FR 36972, Sept. 23, 1988. Redesignated and amended at 55 FR 48429, Nov. 20, 1990]

§61.152 Air-cleaning.

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(a) The owner or operator who uses air cleaning, as specified in §§61.142(a), 61.144(b)(2), 61.145(c)(3)(i)(B)(I), 61.145(c)(4)(ii), 61.145(c)(11)(i), 61.146(b)(2), 61.147(b)(2), 61.149(b), 61.149(c)(1)(ii), 61.150(a)(1)(ii), 61.150(a)(2)(ii), and 61.155(e) shall:

- (1) Use fabric filter collection devices, except as noted in paragraph (b) of this section, doing all of the following:
 - (i) Ensuring that the airflow permeability, as determined by ASTM Method D737-75, does not exceed 9 m³/min/m² (30 ft³/min/ft²) for woven fabrics or 11²/min/m²(35 ft³/min/ft²) for felted fabrics, except that 12 m³/min/m² (40 ft³/min/ft²) for woven and 14 m³/min/m² (45 ft³/min/ft²) for felted fabrics is allowed for filtering air from asbestos ore dryers; and
 - (ii) Ensuring that felted fabric weighs at least 475 grams per square meter (14 ounces per square yard) and is at least 1.6 millimeters (one-sixteenth inch) thick throughout; and
 - (iii) Avoiding the use of synthetic fabrics that contain fill yarn other than that which is spun.

(2) Properly install, use, operate, and maintain all air-cleaning equipment authorized by this section. Bypass devices may be used only during upset or emergency conditions and then only for so long as it takes to shut down the operation generating the particulate asbestos material.

- (3) For fabric filter collection devices installed after January 10, 1989, provide for easy inspection for faulty bags.
- (b) There are the following exceptions to paragraph (a)(1):

(1) After January 10, 1989, if the use of fabric creates a fire or explosion hazard, or the Administrator determines that a fabric filter is not feasible, the Administrator may authorize as a substitute the use of wet collectors designed to operate with a unit contacting energy of at least 9.95 kilopascals (40 inches water gage pressure).

(2) Use a HEPA filter that is certified to be at least 99.97 percent efficient for 0.3 micron particles.

(3) The Administrator may authorize the use of filtering equipment other than described in paragraphs (a)(1) and (b)(1) and (2) of this section if the owner or operator demonstrates to the Administrator's satisfaction that it is equivalent to the described equipment in filtering particulate asbestos material.

[49 FR 13661, Apr. 5, 1984; 49 FR 25453, June 21, 1984, as amended at 51 FR 8199, Mar. 10, 1986. Redesignated and amended at 55 FR 48430, Nov. 20, 1990]

§61.153 Reporting.

(a) Any new source to which this subpart applies (with the exception of sources subject to §§61.143, 61.145, 61.146, and 61.148), which has an initial startup date preceding the effective date of this revision, shall provide the following information to the Administrator postmarked or delivered within 90 days of the effective date. In the case of a new source that does not have an initial startup date preceding the effective date, the information shall be provided, postmarked or delivered, within 90 days of the initial startup date. Any owner or operator of an existing source shall provide the following information to the Administrator within 90 days of the effective date of this subpart unless the owner or operator of the existing source has previously provided this information to the Administrator. Any changes in the information provided by any existing source shall be provided to the Administrator, postmarked or delivered, within 30 days after the change.

- (1) A description of the emission control equipment used for each process; and
- (i) If the fabric device uses a woven fabric, the airflow permeability in m³/min/m² and; if the fabric is synthetic, whether the fill yarn is spun or not spun; and
- (ii) If the fabric filter device uses a felted fabric, the density in g/m², the minimum thickness in inches, and the airflow permeability in m³/min/m².
- (2) If a fabric filter device is used to control emissions,
 - (i) The airflow permeability in m³/min/m² (ft³/min/ft²) if the fabric filter device uses a woven fabric, and, if the fabric is synthetic, whether the fill yarn is spun or not spun; and
 - (ii) If the fabric filter device uses a felted fabric, the density in g/m² (oz/yd²), the minimum thickness in millimeters (inches), and the airflow permeability in m³/min/m² (ft³/min/ft²).
- (3) If a HEPA filter is used to control emissions, the certified efficiency.

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- (4) For sources subject to §§61.149 and 61.150:
 - (i) A brief description of each process that generates asbestos-containing waste material; and
 - (ii) The average volume of asbestos-containing waste material disposed of, measured in m³/day (yd³/day); and
 - (iii) The emission control methods used in all stages of waste disposal; and
 - (iv) The type of disposal site or incineration site used for ultimate disposal, the name of the site operator, and the name and location of the disposal site.
- (5) For sources subject to §§61.151 and 61.154:
 - (i) A brief description of the site; and
 - (ii) The method or methods used to comply with the standard, or alternative procedures to be used.

(b) The information required by paragraph (a) of this section must accompany the information required by §61.10. Active waste disposal sites subject to §61.154 shall also comply with this provision. Roadways, demolition and renovation, spraying, and insulating materials are exempted from the requirements of §61.10(a). The information described in this section must be reported using the format of appendix A of this part as a guide.

(Sec. 114, Clean Air Act as amended (42 U.S.C. 7414))

[49 FR 13661, Apr. 5, 1984. Redesignated and amended at 55 FR 48430, Nov. 20, 1990; 56 FR 1669, Jan. 16, 1991]

§61.154 Standard for active waste disposal sites.

Each owner or operator of an active waste disposal site that receives asbestos-containing waste material from a source covered under §61.149, 61.150, or 61.155 shall meet the requirements of this section:

- (a) Either there must be no visible emissions to the outside air from any active waste disposal site where asbestos-containing waste material has been deposited, or the requirements of paragraph (c) or (d) of this section must be met.
- (b) Unless a natural barrier adequately deters access by the general public, either warning signs and fencing must be installed and maintained as follows, or the requirements of paragraph (c)(1) of this section must be met.
 - (1) Warning signs must be displayed at all entrances and at intervals of 100 m (330 ft) or less along the property line of the site or along the perimeter of the sections of the site where asbestos-containing waste material is deposited. The warning signs must:
 - (i) Be posted in such a manner and location that a person can easily read the legend; and
 - (ii) Conform to the requirements of 51 cm x 36 cm (20"x14") upright format signs specified in 29 CFR 1910.145(d)(4) and this paragraph; and
 - (iii) Display the following legend in the lower panel with letter sizes and styles of a visibility at least equal to those specified in this paragraph.

Legend	Notation
Asbestos Waste Disposal Site	2.5 cm (1 inch) Sans Serif, Gothic or Block.
Do Not Create Dust	1.9 cm (3/4 inch) Sans Serif, Gothic or Block.
Breathing Asbestos is Hazardous to Your Health	14 Point Gothic.

Spacing between any two lines must be at least equal to the height of the upper of the two lines.

- (2) The perimeter of the disposal site must be fenced in a manner adequate to deter access by the general public.
- (3) Upon request and supply of appropriate information, the Administrator will determine whether a fence or a natural barrier adequately deters access by the general public.
- (c) Rather than meet the no visible emission requirement of paragraph (a) of this section, at the end of each operating day, or at least once every 24-hour period while the site is in continuous operation, the asbestos-containing waste material that has been deposited at the site during the operating day or previous 24-hour period shall:

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- (1) Be covered with at least 15 centimeters (6 inches) of compacted nonasbestos-containing material, or
- (2) Be covered with a resinous or petroleum-based dust suppression agent that effectively binds dust and controls wind erosion. Such an agent shall be used in the manner and frequency recommended for the particular dust by the dust suppression agent manufacturer to achieve and maintain dust control. Other equally effective dust suppression agents may be used upon prior approval by the Administrator. For purposes of this paragraph, any used, spent, or other waste oil is not considered a dust suppression agent.
- (d) Rather than meet the no visible emission requirement of paragraph (a) of this section, use an alternative emissions control method that has received prior written approval by the Administrator according to the procedures described in §61.149(c)(2).
- (e) For all asbestos-containing waste material received, the owner or operator of the active waste disposal site shall:
 - (1) Maintain waste shipment records, using a form similar to that shown in Figure 4, and include the following information:
 - (i) The name, address, and telephone number of the waste generator.
 - (ii) The name, address, and telephone number of the transporter(s).
 - (iii) The quantity of the asbestos-containing waste material in cubic meters (cubic yards).
 - (iv) The presence of improperly enclosed or uncovered waste, or any asbestos-containing waste material not sealed in leak-tight containers. Report in writing to the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the waste generator (identified in the waste shipment record), and, if different, the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the disposal site, by the following working day, the presence of a significant amount of improperly enclosed or uncovered waste. Submit a copy of the waste shipment record along with the report.
 - (v) The date of the receipt.
 - (2) As soon as possible and no longer than 30 days after receipt of the waste, send a copy of the signed waste shipment record to the waste generator.
 - (3) Upon discovering a discrepancy between the quantity of waste designated on the waste shipment records and the quantity actually received, attempt to reconcile the discrepancy with the waste generator. If the discrepancy is not resolved within 15 days after receiving the waste, immediately report in writing to the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the waste generator (identified in the waste shipment record), and, if different, the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the disposal site. Describe the discrepancy and attempts to reconcile it, and submit a copy of the waste shipment record along with the report.
 - (4) Retain a copy of all records and reports required by this paragraph for at least 2 years.
 - (f) Maintain, until closure, records of the location, depth and area, and quantity in cubic meters (cubic yards) of asbestos-containing waste material within the disposal site on a map or diagram of the disposal area.
 - (g) Upon closure, comply with all the provisions of §61.151.
 - (h) Submit to the Administrator, upon closure of the facility, a copy of records of asbestos waste disposal locations and quantities.
 - (i) Furnish upon request, and make available during normal business hours for inspection by the Administrator, all records required under this section.
 - (j) Notify the Administrator in writing at least 45 days prior to excavating or otherwise disturbing any asbestos-containing waste material that has been deposited at a waste disposal site and is covered. If the excavation will begin on a date other than the one contained in the original notice, notice of the new start date must be provided to the Administrator at least 10 working days before excavation begins and in no event shall excavation begin earlier than the date specified in the original notification. Include the following information in the notice:
 - (1) Scheduled starting and completion dates.

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(2) Reason for disturbing the waste.

(3) Procedures to be used to control emissions during the excavation, storage, transport, and ultimate disposal of the excavated asbestos-containing waste material. If deemed necessary, the Administrator may require changes in the emission control procedures to be used.

(4) Location of any temporary storage site and the final disposal site.

(Secs. 112 and 301(a) of the Clean Air Act as amended (42 U.S.C. 7412, 7601(a))

[49 FR 13661, Apr. 5, 1990. Redesignated and amended at 55 FR 48431, Nov. 20, 1990; 56 FR 1669, Jan. 16, 1991]

§61.155 Standard for operations that convert asbestos-containing waste material into nonasbestos (asbestos-free) material.

Each owner or operator of an operation that converts RACM and asbestos-containing waste material into nonasbestos (asbestos-free) material shall:

(a) Obtain the prior written approval of the Administrator to construct the facility. To obtain approval, the owner or operator shall provide the Administrator with the following information:

(1) Application to construct pursuant to §61.07.

(2) In addition to the information requirements of §61.07(b)(3), a

(i) Description of waste feed handling and temporary storage.

(ii) Description of process operating conditions.

(iii) Description of the handling and temporary storage of the end product.

(iv) Description of the protocol to be followed when analyzing output materials by transmission electron microscopy.

(3) Performance test protocol, including provisions for obtaining information required under paragraph (b) of this section.

(4) The Administrator may require that a demonstration of the process be performed prior to approval of the application to construct.

(b) Conduct a start-up performance test. Test results shall include:

(1) A detailed description of the types and quantities of nonasbestos material, RACM, and asbestos-containing waste material processed, e.g., asbestos cement products, friable asbestos insulation, plaster, wood, plastic, wire, etc. Test feed is to include the full range of materials that will be encountered in actual operation of the process.

(2) Results of analyses, using polarized light microscopy, that document the asbestos content of the wastes processed.

(3) Results of analyses, using transmission electron microscopy, that document that the output materials are free of asbestos. Samples for analysis are to be collected as 8-hour composite samples (one 200-gram (7-ounce) sample per hour), beginning with the initial introduction of RACM or asbestos-containing waste material and continuing until the end of the performance test.

(4) A description of operating parameters, such as temperature and residence time, defining the full range over which the process is expected to operate to produce nonasbestos (asbestos-free) materials. Specify the limits for each operating parameter within which the process will produce nonasbestos (asbestos-free) materials.

(5) The length of the test.

(c) During the initial 90 days of operation,

(1) Continuously monitor and log the operating parameters identified during start-up performance tests that are intended to ensure the production of nonasbestos (asbestos-free) output material.

(2) Monitor input materials to ensure that they are consistent with the test feed materials described during start-up performance tests in paragraph (b)(1) of this section.

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(3) Collect and analyze samples, taken as 10-day composite samples (one 200-gram (7-ounce) sample collected every 8 hours of operation) of all output material for the presence of asbestos. Composite samples may be for fewer than 10 days. Transmission electron microscopy (TEM) shall be used to analyze the output material for the presence of asbestos. During the initial 90-day period, all output materials must be stored on-site until analysis shows the material to be asbestos-free or disposed of as asbestos-containing waste material according to §61.150.

(d) After the initial 90 days of operation,

(1) Continuously monitor and record the operating parameters identified during start-up performance testing and any subsequent performance testing. Any output produced during a period of deviation from the range of operating conditions established to ensure the production of nonasbestos (asbestos-free) output materials shall be:

(i) Disposed of as asbestos-containing waste material according to §61.150, or

(ii) Recycled as waste feed during process operation within the established range of operating conditions, or

(iii) Stored temporarily on-site in a leak-tight container until analyzed for asbestos content. Any product material that is not asbestos-free shall be either disposed of as asbestos-containing waste material or recycled as waste feed to the process.

(2) Collect and analyze monthly composite samples (one 200-gram (7-ounce) sample collected every 8 hours of operation) of the output material. Transmission electron microscopy shall be used to analyze the output material for the presence of asbestos.

(e) Discharge no visible emissions to the outside air from any part of the operation, or use the methods specified by §61.152 to clean emissions containing particulate asbestos material before they escape to, or are vented to, the outside air.

(f) Maintain records on-site and include the following information:

(1) Results of start-up performance testing and all subsequent performance testing, including operating parameters, feed characteristic, and analyses of output materials.

(2) Results of the composite analyses required during the initial 90 days of operation under §61.155(c).

(3) Results of the monthly composite analyses required under §61.155(d).

(4) Results of continuous monitoring and logs of process operating parameters required under §61.155 (c) and (d).

(5) The information on waste shipments received as required in §61.154(e).

(6) For output materials where no analyses were performed to determine the presence of asbestos, record the name and location of the purchaser or disposal site to which the output materials were sold or deposited, and the date of sale or disposal.

(7) Retain records required by paragraph (f) of this section for at least 2 years.

(g) Submit the following reports to the Administrator:

(1) A report for each analysis of product composite samples performed during the initial 90 days of operation.

(2) A quarterly report, including the following information concerning activities during each consecutive 3-month period:

(i) Results of analyses of monthly product composite samples.

(ii) A description of any deviation from the operating parameters established during performance testing, the duration of the deviation, and steps taken to correct the deviation.

(iii) Disposition of any product produced during a period of deviation, including whether it was recycled, disposed of as asbestos-containing waste material, or stored temporarily on-site until analyzed for asbestos content.

(iv) The information on waste disposal activities as required in §61.154(f).

(h) Nonasbestos (asbestos-free) output material is not subject to any of the provisions of this subpart. Output materials in which asbestos is detected, or output materials produced when the operating parameters deviated from those established during the start-up performance testing, unless shown by TEM analysis to be asbestos-free, shall be considered to be

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asbestos-containing waste and shall be handled and disposed of according to §§61.150 and 61.154 or reprocessed while all of the established operating parameters are being met.

[55 FR 48431, Nov. 20, 1990]

§61.156 Cross-reference to other asbestos regulations.

In addition to this subpart, the regulations referenced in Table I also apply to asbestos and may be applicable to those sources specified in §§61.142 through 61.151, 61.154, and 61.155 of this subpart. These cross-references are presented for the reader's information and to promote compliance with the cited regulations.

TABLE I—CROSS-REFERENCE TO OTHER ASBESTOS REGULATIONS

Agency	CFR citation	Comment
EPA	40 CFR part 763, subpart E	Requires schools to inspect for asbestos and implement response actions and submit asbestos management plans to States. Specifies use of accredited inspectors, air sampling methods, and waste disposal procedures.
	40 CFR part 427	Effluent standards for asbestos manufacturing source categories.
	40 CFR part 763, subpart G	Protects public employees performing asbestos abatement work in States not covered by OSHA asbestos standard.
OSHA	29 CFR 1910.1001	Worker protection measures—engineering controls, worker training, labeling, respiratory protection, bagging of waste, permissible exposure level.
	29 CFR 1926.1101	Worker protection measures for all construction work involving asbestos, including demolition and renovation—work practices, worker training, bagging of waste, permissible exposure level.
MSHA	30 CFR part 56, subpart D	Specifies exposure limits, engineering controls, and respiratory protection measures for workers in surface mines.
	30 CFR part 57, subpart D	Specifies exposure limits, engineering controls, and respiratory protection measures for workers in underground mines.
DOT	49 CFR parts 171 and 172	Regulates the transportation of asbestos-containing waste material. Requires waste containment and shipping papers.

[55 FR 48432, Nov. 20, 1990, as amended at 60 FR 31920, June 19, 1995; 68 FR 54793, Sept. 18, 2003; 69 FR 43324, July 20, 2004]

§61.157 Delegation of authority.

(a) In delegating implementation and enforcement authority to a State under section 112(d) of the Act, the authorities contained in paragraph (b) of this section shall be retained by the Administrator and not transferred to a State.

(b) Authorities that will not be delegated to States:

- (1) Section 61.149(c)(2)
- (2) Section 61.150(a)(4)
- (3) Section 61.151(c)
- (4) Section 61.152(b)(3)
- (5) Section 61.154(d)
- (6) Section 61.155(a).

[55 FR 48433, Nov. 20, 1990]

Appendix A to Subpart M of Part 61—Interpretive Rule Governing Roof Removal Operations

I. Applicability of the Asbestos NESHAP

1.1. Asbestos-containing material (ACM) is material containing more than one percent asbestos as determined using the methods specified in appendix E, subpart E, 40 CFR part 763, section 1, Polarized Light Microscopy. The NESHAP classifies ACM as either "friable" or "nonfriable". Friable ACM is ACM that, when dry, can be crumbled, pulverized or

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reduced to powder by hand pressure. Nonfriable ACM is ACM that, when dry, cannot be crumbled, pulverized or reduced to powder by hand pressure.

1.2. Nonfriable ACM is further classified as either Category I ACM or Category II ACM. Category I ACM and Category II ACM are distinguished from each other by their potential to release fibers when damaged. Category I ACM includes asbestos-containing gaskets, packings, resilient floor coverings, resilient floor covering mastic, and asphalt roofing products containing more than one percent asbestos. Asphalt roofing products which may contain asbestos include built-up roofing; asphalt-containing single ply membrane systems; asphalt shingles; asphalt-containing underlayment felts; asphalt-containing roof coatings and mastics; and asphalt-containing base flashings. ACM roofing products that use other bituminous or resinous binders (such as coal tars or pitches) are also considered to be Category I ACM. Category II ACM includes all other nonfriable ACM, for example, asbestos-cement (A/C) shingles, A/C tiles, and transite boards or panels containing more than one percent asbestos. Generally speaking, Category II ACM is more likely to become friable when damaged than is Category I ACM. The applicability of the NESHAP to Category I and II ACM depends on: (1) the condition of the material at the time of demolition or renovation, (2) the nature of the operation to which the material will be subjected, (3) the amount of ACM involved.

1.3. Asbestos-containing material regulated under the NESHAP is referred to as "regulated asbestos-containing material" (RACM). RACM is defined in §61.141 of the NESHAP and includes: (1) friable asbestos-containing material; (2) Category I nonfriable ACM that has become friable; (3) Category I nonfriable ACM that has been or will be sanded, ground, cut, or abraded; or (4) Category II nonfriable ACM that has already been or is likely to become crumbled, pulverized, or reduced to powder. If the coverage threshold for RACM is met or exceeded in a renovation or demolition operation, then all friable ACM in the operation, and in certain situations, nonfriable ACM in the operation, are subject to the NESHAP.

A. Threshold Amounts of Asbestos-Containing Roofing Material

1.A.1. The NESHAP does not cover roofing projects on single family homes or on residential buildings containing four or fewer dwelling units. 40 CFR 61.141. For other roofing renovation projects, if the total asbestos-containing roof area undergoing renovation is less than 160 ft², the NESHAP does not apply, regardless of the removal method to be used, the type of material (Category I or II), or its condition (friable versus nonfriable). 40 CFR 61.145(a)(4). However, EPA would recommend the use of methods that damage asbestos-containing roofing material as little as possible. EPA has determined that where a rotating blade (RB) roof cutter or equipment that similarly damages the roofing material is used to remove Category I nonfriable asbestos-containing roofing material, the removal of 5580 ft² of that material will create 160 ft² of RACM. For the purposes of this interpretive rule, "RB roof cutter" means an engine-powered roof cutting machine with one or more rotating cutting blades the edges of which are blunt. (Equipment with blades having sharp or tapered edges, and/or which does not use a rotating blade, is used for "slicing" rather than "cutting" the roofing material; such equipment is not included in the term "RB roof cutter".) Therefore, it is EPA's interpretation that when an RB roof cutter or equipment that similarly damages the roofing material is used to remove Category I nonfriable asbestos-containing roofing material, any project that is 5580 ft² or greater is subject to the NESHAP; conversely, it is EPA's interpretation that when an RB roof cutter or equipment that similarly damages the roofing material is used to remove Category I nonfriable asbestos-containing roofing material in a roof removal project that is less than 5580 ft², the project is not subject to the NESHAP, except that notification is always required for demolitions. EPA further construes the NESHAP to mean that if slicing or other methods that do not sand, grind, cut or abrade will be used on Category I nonfriable ACM, the NESHAP does not apply, regardless of the area of roof to be removed.

1.A.2. For asbestos cement (A/C) shingles (or other Category II roofing material), if the area of the roofing material to be removed is at least 160 ft² and the removal methods will crumble, pulverize, reduce to powder, or contaminate with RACM (from other ACM that has been crumbled, pulverized or reduced to powder) 160 ft² or more of such roofing material, the removal is subject to the NESHAP. Conversely, if the area of the A/C shingles (or other Category II roofing materials) to be removed is less than 160 ft², the removal is not subject to the NESHAP regardless of the removal method used, except that notification is always required for demolitions. 40 CFR 61.145(a). However, EPA would recommend the use of methods that damage asbestos-containing roofing material as little as possible. If A/C shingles (or other Category II roofing materials) are removed without 160 ft² or more of such roofing material being crumbled, pulverized, reduced to powder, or contaminated with RACM (from other ACM that has been crumbled, pulverized or reduced to powder), the operation is not subject to the NESHAP, even where the total area of the roofing material to be removed exceeds 160 ft²; provided, however, that if the renovation includes other operations involving RACM, the roof removal operation is covered if the total area of RACM from all renovation activities exceeds 160 ft². See the definition of regulated asbestos-containing material (RACM), 40 CFR 61.141.

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1.A.3. Only roofing material that meets the definition of ACM can qualify as RACM subject to the NESHAP. Therefore, to determine if a removal operation that meets or exceeds the coverage threshold is subject to the NESHAP, any suspect roofing material (*i.e.* roofing material that may be ACM) should be tested for asbestos. If any such roofing material contains more than one percent asbestos and if the removal operation is covered by the NESHAP, then EPA must be notified and the work practices in §61.145(c) must be followed. In EPA's view, if a removal operation involves at least the threshold level of suspect material, a roofing contractor may choose not to test for asbestos if the contractor follows the notification and work practice requirements of the NESHAP.

B. A/C Shingle Removal (Category II ACM Removal)

1.B.1. A/C shingles, which are Category II nonfriable ACM, become regulated ACM if the material has a high probability of becoming or has become crumbled, pulverized or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations. 40 CFR 61.141. However, merely breaking an A/C shingle (or any other category II ACM) that is not friable may not necessarily cause the material to become RACM. A/C shingles are typically nailed to buildings on which they are attached. EPA believes that the extent of breakage that will normally result from carefully removing A/C shingles and lowering the shingles to the ground will not result in crumbling, pulverizing or reducing the shingles to powder. Conversely, the extent of breakage that will normally occur if the A/C shingles are dropped from a building or scraped off of a building with heavy machinery would cause the shingles to become RACM. EPA therefore construes the NESHAP to mean that the removal of A/C shingles that are not friable, using methods that do not crumble, pulverize, or reduce the A/C shingles to powder (such as pry bars, spud bars and shovels to carefully pry the material), is not subject to the NESHAP provided that the A/C shingles are properly handled during and after removal, as discussed in this paragraph and the asbestos NESHAP. This interpretation also applies to other Category II nonfriable asbestos-containing roofing materials.

C. Cutting vs. Slicing and Manual Methods for Removal of Category I ACM

1.C.1. Because of damage to the roofing material, and the potential for fiber release, roof removal operations using rotating blade (RB) roof cutters or other equipment that sand, grind, cut or abrade the roof material are subject to the NESHAP. As EPA interprets the NESHAP, the use of certain manual methods (using equipment such as axes, hatchets, or knives, spud bars, pry bars, and shovels, but not saws) or methods that slice, shear, or punch (using equipment such as a power slicer or power plow) does not constitute "cutting, sanding, grinding or abrading." This is because these methods do not destroy the structural matrix or integrity of the material such that the material is crumbled, pulverized or reduced to powder. Hence, it is EPA's interpretation that when such methods are used, assuming the roof material is not friable, the removal operation is not subject to the regulation.

1.C.2. Power removers or power tear-off machines are typically used to pry the roofing material up from the deck after the roof membrane has been cut. It is EPA's interpretation that when these machines are used to pry roofing material up, their use is not regulated by the NESHAP.

1.C.3. As noted previously, the NESHAP only applies to the removal of asbestos-containing roofing materials. Thus, the NESHAP does not apply to the use of RB cutters to remove non-asbestos built up roofing (BUR). On roofs containing some asbestos-containing and some non-asbestos-containing materials, coverage under the NESHAP depends on the methods used to remove each type of material in addition to other coverage thresholds specified above. For example, it is not uncommon for existing roofs to be made of non-asbestos BUR and base flashings that do contain asbestos. In that situation, EPA construes the NESHAP to be inapplicable to the removal of the non-asbestos BUR using an RB cutter so long as the RB cutter is not used to cut 5580 ft² or more of the asbestos-containing base flashing or other asbestos-containing material into sections. In addition, the use of methods that slice, shear, punch or pry could then be used to remove the asbestos flashings and not trigger coverage under the NESHAP.

II. Notification

2.1. Notification for a demolition is always required under the NESHAP. However, EPA believes that few roof removal jobs constitute "demolitions" as defined in the NESHAP (§61.141). In particular, it is EPA's view that the removal of roofing systems (*i.e.*, the roof membrane, insulation, surfacing, flashings, mastic, shingles, and felt underlayment), when such removal is not a part of a demolition project, constitutes a "renovation" under the NESHAP. If the operation is a renovation, and Category I roofing material is being removed using either manual methods or slicing, notification is not required by the NESHAP. If Category II material is not friable and will be removed without crumbling, pulverizing, or reducing it to powder, no notification is required. Also, if the renovation involves less than the threshold area for applicability as discussed above, then no notification is required. However, if a roof removal meets the applicability and threshold

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requirements under the NESHAP, then EPA (or the delegated agency) must be notified in advance of the removal in accordance with the requirements of §61.145(b), as follows:

- Notification must be given in writing at least 10 working days in advance and must include the information in §61.145(b)(4), except for emergency renovations as discussed below.
- The notice must be updated as necessary, including, for example, when the amount of asbestos-containing roofing material reported changes by 20 percent or more.
- EPA must be notified if the start date of the roof removal changes. If the start date of a roof removal project is changed to an earlier date, EPA must be provided with a written notice of the new start date at least 10 working days in advance. If the start date changes to a later date, EPA must be notified by telephone as soon as possible before the original start date and a written notice must be sent as soon as possible.

- For emergency renovations (as defined in §61.141), where work must begin immediately to avoid safety or public health hazards, equipment damage, or unreasonable financial burden, the notification must be postmarked or delivered to EPA as soon as possible, but no later than the following work day.

III. Emission Control Practices

A. Requirements To Adequately Wet and Discharge No Visible Emission

3.A.1. The principal controls contained in the NESHAP for removal operations include requirements that the affected material be adequately wetted, and that asbestos waste be handled, collected, and disposed of properly. The requirements for disposal of waste materials are discussed separately in section IV below. The emission control requirements discussed in this section III apply only to roof removal operations that are covered by the NESHAP as set forth in Section I above.

3.A.2. For any operation subject to the NESHAP, the regulation (§61.145(c)(2)(i), (3), (6)(i)) requires that RACM be adequately wet (as defined in §61.141) during the operation that damages or disturbs the asbestos material until collected for disposal.

3.A.3. When using an RB roof cutter (or any other method that sands, grinds, cuts or abrades the roofing material) to remove Category I asbestos-containing roofing material, the emission control requirements of §61.145(c) apply as discussed in Section I above. EPA will consider a roof removal project to be in compliance with the "adequately wet" and "discharge no visible emission" requirements of the NESHAP if the RB roof cutter is equipped and operated with the following: (1) a blade guard that completely encloses the blade and extends down close to the roof surface; and (2) a device for spraying a fine mist of water inside the blade guard, and which device is in operation during the cutting of the roof.

B. Exemptions From Wetting Requirements

3.B.1. The NESHAP provides that, in certain instances, wetting may not be required during the cutting of Category I asbestos roofing material with an RB roof cutter. If EPA determines in accordance with §61.145(c)(3)(i), that wetting will unavoidably damage the building, equipment inside the building, or will present a safety hazard while stripping the ACM from a facility component that remains in place, the roof removal operation will be exempted from the requirement to wet during cutting. EPA must have sufficient written information on which to base such a decision. Before proceeding with a dry removal, the contractor must have received EPA's written approval. Such exemptions will be made on a case-by-case basis.

3.B.2. It is EPA's view that, in most instances, exemptions from the wetting requirements are not necessary. Where EPA grants an exemption from wetting because of the potential for damage to the building, damage to equipment within the building or a safety hazard, the NESHAP specifies alternative control methods (§61.145(c)(3)(i)(B)). Alternative control methods include (a) the use of local exhaust ventilation systems that capture the dust, and do not produce visible emissions, or (b) methods that are designed and operated in accordance with the requirements of §61.152, or (c) other methods that have received the written approval of EPA. EPA will consider an alternative emission control method in compliance with the NESHAP if the method has received written approval from EPA and the method is being implemented consistent with the approved procedures (§61.145(c)(3)(i) or §61.152(b)(3)).

3.B.3. An exemption from wetting is also allowed when the air or roof surface temperature at the point of wetting is below freezing, as specified in §61.145(c)(7). If freezing temperatures are indicated as the reason for not wetting, records must be kept of the temperature at the beginning, middle and end of the day on which wetting is not performed and the records of temperature must be retained for at least 2 years. 42 CFR §61.145(c)(7)(iii). It is EPA's interpretation that in such cases, no written application to, or written approval by the Administrator is needed for using emission control methods listed in §61.145(c)(3)(i)(B), or alternative emission control methods that have been previously approved by the Administrator.

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However, such written application or approval is required for alternative emission control methods that have not been previously approved. Any dust and debris collected from cutting must still be kept wet and placed in containers. All of the other requirements for notification and waste disposal would continue to apply as described elsewhere in this notice and the Asbestos NESHAP.

C. Waste Collection and Handling

3.C.1. It is EPA's interpretation that waste resulting from slicing and other methods that do not cut, grind, sand or abrade Category I nonfriable asbestos-containing roofing material is not subject to the NESHAP and can be disposed of as nonasbestos waste. EPA further construes the NESHAP to provide that if Category II roofing material (such as A/C shingles) is removed and disposed of without crumbling, pulverizing, or reducing it to powder, the waste from the removal is not subject to the NESHAP waste disposal requirements. EPA also interprets the NESHAP to be inapplicable to waste resulting from roof removal operations that do not meet or exceed the coverage thresholds described in section I above. Of course, other State, local, or Federal regulations may apply.

3.C.2. It is EPA's interpretation that when an RB roof cutter, or other method that similarly damages the roofing material, is used to cut Category I asbestos containing roofing material, the damaged material from the cut (the sawdust or debris) is considered asbestos containing waste subject to §61.150 of the NESHAP, provided the coverage thresholds discussed above in section I are met or exceeded. This sawdust or debris must be disposed of at a disposal site operated in accordance with the NESHAP. It is also EPA's interpretation of the NESHAP that if the remainder of the roof is free of the sawdust and debris generated by the cutting, or if such sawdust or debris is collected as discussed below in paragraphs 3.C.3, 3.C.4, 3.C.5 and 3.C.6, the remainder of the roof can be disposed of as nonasbestos waste because it is considered to be Category I nonfriable material (as long as the remainder of the roof is in fact nonasbestos material or if it is Category I asbestos material and the removal methods do not further sand, grind, cut or abrade the roof material). EPA further believes that if the roof is not cleaned of such sawdust or debris, *i.e.*, it is contaminated, then it must be treated as asbestos-containing waste material and be handled in accordance with §61.150.

3.C.3. In order to be in compliance with the NESHAP while using an RB roof cutter (or device that similarly damages the roofing material) to cut Category I asbestos containing roofing material, the dust and debris resulting from the cutting of the roof should be collected as soon as possible after the cutting operation, and kept wet until collected and placed in leak-tight containers. EPA believes that where the blade guard completely encloses the blade and extends down close to the roof surface and is equipped with a device for spraying a fine mist of water inside the blade guard, and the spraying device is in operation during the cutting, most of the dust and debris from cutting will be confined along the cut. The most efficient methods to collect the dust and debris from cutting are to immediately collect or vacuum up the damaged material where it lies along the cut using a filtered vacuum cleaner or debris collector that meets the requirements of 40 CFR 61.152 to clean up as much of the debris as possible, or to gently sweep up the bulk of the debris, and then use a filtered vacuum cleaner that meets the requirements of 40 CFR 61.152 to clean up as much of the remainder of the debris as possible. On smooth surfaced roofs (nonaggregate roofs), sweeping up the debris and then wet wiping the surface may be done in place of using a filtered vacuum cleaner. It is EPA's view that if these decontamination procedures are followed, the remaining roofing material does not have to be collected and disposed of as asbestos waste. Additionally, it is EPA's view that where such decontamination procedures are followed, if the remaining portions of the roof are non-asbestos or Category I nonfriable asbestos material, and if the remaining portions are removed using removal methods that slice, shear, punch or pry, as discussed in section I.C. above, then the remaining portions do not have to be collected and disposed of as asbestos waste and the NESHAP's no visible emissions and adequately wet requirements are not applicable to the removal of the remaining portions. In EPA's interpretation, the failure of a filtered vacuum cleaner or debris collector to collect larger chunks or pieces of damaged roofing material created by the RB roof cutter does not require the remaining roofing material to be handled and disposed of as asbestos waste, provided that such visible chunks or pieces of roofing material are collected (e.g. by gentle sweeping) and disposed of as asbestos waste. Other methods of decontamination may not be adequate, and should be approved by the local delegated agency.

3.C.4. In EPA's interpretation, if the debris from the cutting is not collected immediately, it will be necessary to lightly mist the dust or debris, until it is collected, as discussed above, and placed in containers. The dust or debris should be lightly misted frequently enough to prevent the material from drying, and to prevent airborne emissions, prior to collection as described above. It is EPA's interpretation of the NESHAP that if these procedures are followed, the remaining roofing material does not have to be collected and disposed of as asbestos waste, as long as the remaining roof material is in fact nonasbestos material or if it is Category I asbestos material and the removal methods do not further sand, grind, cut or abrade the roof material.

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3.C.5. It is EPA's interpretation that, provided the roofing material is not friable prior to the cutting operation, and provided the roofing material has not been made friable by the cutting operation, the appearance of rough, jagged or damaged edges on the remaining roofing material, due to the use of an RB roof cutter, does not require that such remaining roofing material be handled and disposed of as asbestos waste. In addition, it is also EPA's interpretation that if the sawdust or debris generated by the use of an RB roof cutter has been collected as discussed in paragraphs 3.C.3, 3.C.4 and 3.C.6, the presence of dust along the edge of the remaining roof material does not render such material "friable" for purposes of this interpretive rule or the NESHAP, provided the roofing material is not friable prior to the cutting operation, and provided that the remaining roofing material near the cutline has not been made friable by the cutting operation. Where roofing material near the cutline has been made friable by the use of the RB cutter (*i.e.* where such remaining roofing material near the cutline can be crumbled, pulverized or reduced to powder using hand pressure), it is EPA's interpretation that the use of an encapsulant will ensure that such friable material need not be treated or disposed of as asbestos containing waste material. The encapsulant may be applied to the friable material after the roofing material has been collected into stacks for subsequent disposal as nonasbestos waste. It is EPA's view that if the encapsulation procedure set forth in this paragraph is followed in operations where roofing material near the cutline has been rendered friable by the use of an RB roof cutter, and if the decontamination procedures set forth in paragraph 3.C.3 have been followed, the NESHAP's no visible emissions and adequately wet requirements would be met for the removal, handling and disposal of the remaining roofing material.

3.C.6. As one way to comply with the NESHAP, the dust and debris from cutting can be placed in leak-tight containers, such as plastic bags, and the containers labeled using warning labels required by OSHA (29 CFR 1926.58). In addition, the containers must have labels that identify the waste generator (such as the name of the roofing contractor, abatement contractor, and/or building owner or operator) and the location of the site at which the waste was generated.

IV. Waste Disposal

A. Disposal Requirements

4.A.1. Section 61.150(b) requires that, as soon as is practical, all collected dust and debris from cutting as well as any contaminated roofing squares, must be taken to a landfill that is operated in accordance with §61.154 or to an EPA-approved site that converts asbestos waste to nonasbestos material in accordance with §61.155. During the loading and unloading of affected waste, asbestos warning signs must be affixed to the vehicles.

B. Waste Shipment Record

4.B.1. For each load of asbestos waste that is regulated under the NESHAP, a waste shipment record (WSR) must be maintained in accordance with §61.150(d). Information that must be maintained for each waste load includes the following:

- Name, address, and telephone number of the waste generator
- Name and address of the local, State, or EPA regional office responsible for administering the asbestos NESHAP program
- Quantity of waste in cubic meters (or cubic yards)
- Name and telephone number of the disposal site operator
- Name and physical site location of the disposal site
- Date transported
- Name, address, and telephone number of the transporter(s)
- Certification that the contents meet all government regulations for transport by highways.

4.B.2. The waste generator is responsible for ensuring that a copy of the WSR is delivered to the disposal site along with the waste shipment. If a copy of the WSR signed by the disposal site operator is not returned to the waste generator within 35 days, the waste generator must contact the transporter and/or the disposal site to determine the status of the waste shipment. 40 CFR 61.150(d)(3). If the signed WSR is not received within 45 days, the waste generator must report, in writing, to the responsible NESHAP program agency and send along a copy of the WSR. 40 CFR 61.150(d)(4). Copies of WSRs, including those signed by the disposal site operator, must be retained for at least 2 years. 40 CFR 61.150(d)(5).

V. Training

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5.1. For those roof removals that are subject to the NESHAP, at least one on-site supervisor trained in the provisions of the NESHAP must be present during the removal of the asbestos roofing material. 40 CFR 61.145(c)(8). In EPA's view, this person can be a job foreman, a hired consultant, or someone who can represent the building owner or contractor responsible for the removal. In addition to the initial training requirement, a refresher training course is required every 2 years. The NESHAP training requirements became effective on November 20, 1991.

5.2. Asbestos training courses developed specifically to address compliance with the NESHAP in roofing work, as well as courses developed for other purposes can satisfy this requirement of the NESHAP, as long as the course covers the areas specified in the regulation. EPA believes that Asbestos Hazard Emergency Response Act (AHERA) training courses will, for example, satisfy the NESHAP training requirements. However, nothing in this interpretive rule or in the NESHAP shall be deemed to require that roofing contractors or roofing workers performing operations covered by the NESHAP must be trained or accredited under AHERA, as amended by the Asbestos School Hazard Abatement Reauthorization Act (ASHARA). Likewise, state or local authorities may independently impose additional training, licensing, or accreditation requirements on roofing contractors performing operations covered by the NESHAP, but such additional training, licensing or accreditation is not called for by this interpretive rule or the federal NESHAP.

5.3. For removal of Category I asbestos containing roofing material where RB roof cutters or equipment that similarly damages the asbestos-containing roofing material are used, the NESHAP training requirements (§61.145(c)(8)) apply as discussed in Section I above. It is EPA's intention that removal of Category I asbestos-containing roofing material using hatchets, axes, knives, and/or the use of spud bars, pry bars and shovels to lift the roofing material, or similar removal methods that slice, punch, or shear the roof membrane are not subject to the training requirements, since these methods do not cause the roof removal to be subject to the NESHAP. Likewise, it is EPA's intention that roof removal operations involving Category II nonfriable ACM are not subject to the training requirements where such operations are not subject to the NESHAP as discussed in section I above.

[59 FR 31158, June 17, 1994, as amended at 60 FR 31920, June 19, 1995]

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APPENDIX NESHAP, SUBPART A OF 40 CFR 63
GENERAL PROVISIONS

e-CFR data is current as of September 4, 2019

Title 40: Protection of Environment
PART 63—NESHAP FOR SOURCE CATEGORIES

Subpart A—General Provisions

SOURCE: 59 FR 12430, Mar. 16, 1994, unless otherwise noted.

§63.1 Applicability.

(a) *General.* (1) Terms used throughout this part are defined in §63.2 or in the Clean Air Act (Act) as amended in 1990, except that individual subparts of this part may include specific definitions in addition to or that supersede definitions in §63.2.

(2) This part contains national emission standards for hazardous air pollutants (NESHAP) established pursuant to section 112 of the Act as amended November 15, 1990. These standards regulate specific categories of stationary sources that emit (or have the potential to emit) one or more hazardous air pollutants listed in this part pursuant to section 112(b) of the Act. This section explains the applicability of such standards to sources affected by them. The standards in this part are independent of NESHAP contained in 40 CFR part 61. The NESHAP in part 61 promulgated by signature of the Administrator before November 15, 1990 (i.e., the date of enactment of the Clean Air Act Amendments of 1990) remain in effect until they are amended, if appropriate, and added to this part.

(3) No emission standard or other requirement established under this part shall be interpreted, construed, or applied to diminish or replace the requirements of a more stringent emission limitation or other applicable requirement established by the Administrator pursuant to other authority of the Act (section 111, part C or D or any other authority of this Act), or a standard issued under State authority. The Administrator may specify in a specific standard under this part that facilities subject to other provisions under the Act need only comply with the provisions of that standard.

(4)(i) Each relevant standard in this part 63 must identify explicitly whether each provision in this subpart A is or is not included in such relevant standard.

(ii) If a relevant part 63 standard incorporates the requirements of 40 CFR part 60, part 61 or other part 63 standards, the relevant part 63 standard must identify explicitly the applicability of each corresponding part 60, part 61, or other part 63 subpart A (General) provision.

(iii) The General Provisions in this subpart A do not apply to regulations developed pursuant to section 112(r) of the amended Act, unless otherwise specified in those regulations.

(5) [Reserved]

(6) To obtain the most current list of categories of sources to be regulated under section 112 of the Act, or to obtain the most recent regulation promulgation schedule established pursuant to section 112(e) of the Act, contact the Office of the Director, Emission Standards Division, Office of Air Quality Planning and Standards, U.S. EPA (MD-13), Research Triangle Park, North Carolina 27711.

(7)-(9) [Reserved]

(10) For the purposes of this part, time periods specified in days shall be measured in calendar days, even if the word "calendar" is absent, unless otherwise specified in an applicable requirement.

(11) For the purposes of this part, if an explicit postmark deadline is not specified in an applicable requirement for the submittal of a notification, application, test plan, report, or other written communication to the Administrator, the owner or operator shall postmark the submittal on or before the number of days specified in the applicable requirement. For example, if a notification must be submitted 15 days before a particular event is scheduled to take place, the notification shall be postmarked on or before 15 days preceding the event; likewise, if a notification must be submitted 15 days after a particular event takes place, the notification shall be postmarked on or before 15 days following the end of the event. The use of reliable non-Government mail carriers that provide indications of verifiable delivery of information required to be submitted to the

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Administrator, similar to the postmark provided by the U.S. Postal Service, or alternative means of delivery agreed to by the permitting authority, is acceptable.

(12) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. Procedures governing the implementation of this provision are specified in §63.9(i).

(b) *Initial applicability determination for this part.* (1) The provisions of this part apply to the owner or operator of any stationary source that—

(i) Emits or has the potential to emit any hazardous air pollutant listed in or pursuant to section 112(b) of the Act; and

(ii) Is subject to any standard, limitation, prohibition, or other federally enforceable requirement established pursuant to this part.

(2) [Reserved]

(3) An owner or operator of a stationary source who is in the relevant source category and who determines that the source is not subject to a relevant standard or other requirement established under this part must keep a record as specified in §63.10(b)(3).

(c) *Applicability of this part after a relevant standard has been set under this part.* (1) If a relevant standard has been established under this part, the owner or operator of an affected source must comply with the provisions of that standard and of this subpart as provided in paragraph (a)(4) of this section.

(2) Except as provided in §63.10(b)(3), if a relevant standard has been established under this part, the owner or operator of an affected source may be required to obtain a title V permit from a permitting authority in the State in which the source is located. Emission standards promulgated in this part for area sources pursuant to section 112(c)(3) of the Act will specify whether—

(i) States will have the option to exclude area sources affected by that standard from the requirement to obtain a title V permit (i.e., the standard will exempt the category of area sources altogether from the permitting requirement);

(ii) States will have the option to defer permitting of area sources in that category until the Administrator takes rulemaking action to determine applicability of the permitting requirements; or

(iii) If a standard fails to specify what the permitting requirements will be for area sources affected by such a standard, then area sources that are subject to the standard will be subject to the requirement to obtain a title V permit without any deferral.

(3)-(4) [Reserved]

(5) If an area source that otherwise would be subject to an emission standard or other requirement established under this part if it were a major source subsequently increases its emissions of hazardous air pollutants (or its potential to emit hazardous air pollutants) such that the source is a major source that is subject to the emission standard or other requirement, such source also shall be subject to the notification requirements of this subpart.

(d) [Reserved]

(e) If the Administrator promulgates an emission standard under section 112(d) or (h) of the Act that is applicable to a source subject to an emission limitation by permit established under section 112(j) of the Act, and the requirements under the section 112(j) emission limitation are substantially as effective as the promulgated emission standard, the owner or operator may request the permitting authority to revise the source's title V permit to reflect that the emission limitation in the permit satisfies the requirements of the promulgated emission standard. The process by which the permitting authority determines whether the section 112(j) emission limitation is substantially as effective as the promulgated emission standard must include, consistent with part 70 or 71 of this chapter, the opportunity for full public, EPA, and affected State review (including the opportunity for EPA's objection) prior to the permit revision being finalized. A negative determination by the permitting authority constitutes final action for purposes of review and appeal under the applicable title V operating permit program.

[59 FR 12430, Mar. 16, 1994, as amended at 67 FR 16595, Apr. 5, 2002]

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§63.2 Definitions.

The terms used in this part are defined in the Act or in this section as follows:

Act means the Clean Air Act (42 U.S.C. 7401 *et seq.*, as amended by Pub. L. 101-549, 104 Stat. 2399).

Actual emissions is defined in subpart D of this part for the purpose of granting a compliance extension for an early reduction of hazardous air pollutants.

Administrator means the Administrator of the United States Environmental Protection Agency or his or her authorized representative (e.g., a State that has been delegated the authority to implement the provisions of this part).

Affected source, for the purposes of this part, means the collection of equipment, activities, or both within a single contiguous area and under common control that is included in a section 112(c) source category or subcategory for which a section 112(d) standard or other relevant standard is established pursuant to section 112 of the Act. Each relevant standard will define the "affected source," as defined in this paragraph unless a different definition is warranted based on a published justification as to why this definition would result in significant administrative, practical, or implementation problems and why the different definition would resolve those problems. The term "affected source," as used in this part, is separate and distinct from any other use of that term in EPA regulations such as those implementing title IV of the Act. Affected source may be defined differently for part 63 than affected facility and stationary source in parts 60 and 61, respectively. This definition of "affected source," and the procedures for adopting an alternative definition of "affected source," shall apply to each section 112(d) standard for which the initial proposed rule is signed by the Administrator after June 30, 2002.

Alternative emission limitation means conditions established pursuant to sections 112(i)(5) or 112(i)(6) of the Act by the Administrator or by a State with an approved permit program.

Alternative emission standard means an alternative means of emission limitation that, after notice and opportunity for public comment, has been demonstrated by an owner or operator to the Administrator's satisfaction to achieve a reduction in emissions of any air pollutant at least equivalent to the reduction in emissions of such pollutant achieved under a relevant design, equipment, work practice, or operational emission standard, or combination thereof, established under this part pursuant to section 112(h) of the Act.

Alternative test method means any method of sampling and analyzing for an air pollutant that is not a test method in this chapter and that has been demonstrated to the Administrator's satisfaction, using Method 301 in appendix A of this part, to produce results adequate for the Administrator's determination that it may be used in place of a test method specified in this part.

Approved permit program means a State permit program approved by the Administrator as meeting the requirements of part 70 of this chapter or a Federal permit program established in this chapter pursuant to title V of the Act (42 U.S.C. 7661).

Area source means any stationary source of hazardous air pollutants that is not a major source as defined in this part.

Commenced means, with respect to construction or reconstruction of an affected source, that an owner or operator has undertaken a continuous program of construction or reconstruction or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or reconstruction.

Compliance date means the date by which an affected source is required to be in compliance with a relevant standard, limitation, prohibition, or any federally enforceable requirement established by the Administrator (or a State with an approved permit program) pursuant to section 112 of the Act.

Compliance schedule means: (1) In the case of an affected source that is in compliance with all applicable requirements established under this part, a statement that the source will continue to comply with such requirements; or

(2) In the case of an affected source that is required to comply with applicable requirements by a future date, a statement that the source will meet such requirements on a timely basis and, if required by an applicable requirement, a detailed schedule of the dates by which each step toward compliance will be reached; or

(3) In the case of an affected source not in compliance with all applicable requirements established under this part, a schedule of remedial measures, including an enforceable sequence of actions or operations with milestones and a schedule for the submission of certified progress reports, where applicable, leading to compliance with a relevant standard, limitation, prohibition, or any federally enforceable requirement established pursuant to section 112 of the Act for which the affected source is not in compliance. This compliance schedule shall resemble and be at least as stringent as that contained in any

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judicial consent decree or administrative order to which the source is subject. Any such schedule of compliance shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based.

Construction means the on-site fabrication, erection, or installation of an affected source. Construction does not include the removal of all equipment comprising an affected source from an existing location and reinstallation of such equipment at a new location. The owner or operator of an existing affected source that is relocated may elect not to reinstall minor ancillary equipment including, but not limited to, piping, ductwork, and valves. However, removal and reinstallation of an affected source will be construed as reconstruction if it satisfies the criteria for reconstruction as defined in this section. The costs of replacing minor ancillary equipment must be considered in determining whether the existing affected source is reconstructed.

Continuous emission monitoring system (CEMS) means the total equipment that may be required to meet the data acquisition and availability requirements of this part, used to sample, condition (if applicable), analyze, and provide a record of emissions.

Continuous monitoring system (CMS) is a comprehensive term that may include, but is not limited to, continuous emission monitoring systems, continuous opacity monitoring systems, continuous parameter monitoring systems, or other manual or automatic monitoring that is used for demonstrating compliance with an applicable regulation on a continuous basis as defined by the regulation.

Continuous opacity monitoring system (COMS) means a continuous monitoring system that measures the opacity of emissions.

Continuous parameter monitoring system means the total equipment that may be required to meet the data acquisition and availability requirements of this part, used to sample, condition (if applicable), analyze, and provide a record of process or control system parameters.

Effective date means:

- (1) With regard to an emission standard established under this part, the date of promulgation in the FEDERAL REGISTER of such standard; or
- (2) With regard to an alternative emission limitation or equivalent emission limitation determined by the Administrator (or a State with an approved permit program), the date that the alternative emission limitation or equivalent emission limitation becomes effective according to the provisions of this part.

Emission standard means a national standard, limitation, prohibition, or other regulation promulgated in a subpart of this part pursuant to sections 112(d), 112(h), or 112(f) of the Act.

Emissions averaging is a way to comply with the emission limitations specified in a relevant standard, whereby an affected source, if allowed under a subpart of this part, may create emission credits by reducing emissions from specific points to a level below that required by the relevant standard, and those credits are used to offset emissions from points that are not controlled to the level required by the relevant standard.

EPA means the United States Environmental Protection Agency.

Equivalent emission limitation means any maximum achievable control technology emission limitation or requirements which are applicable to a major source of hazardous air pollutants and are adopted by the Administrator (or a State with an approved permit program) on a case-by-case basis, pursuant to section 112(g) or (j) of the Act.

Excess emissions and continuous monitoring system performance report is a report that must be submitted periodically by an affected source in order to provide data on its compliance with relevant emission limits, operating parameters, and the performance of its continuous parameter monitoring systems.

Existing source means any affected source that is not a new source.

Federally enforceable means all limitations and conditions that are enforceable by the Administrator and citizens under the Act or that are enforceable under other statutes administered by the Administrator. Examples of federally enforceable limitations and conditions include, but are not limited to:

- (1) Emission standards, alternative emission standards, alternative emission limitations, and equivalent emission limitations established pursuant to section 112 of the Act as amended in 1990;

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(2) New source performance standards established pursuant to section 111 of the Act, and emission standards established pursuant to section 112 of the Act before it was amended in 1990;

(3) All terms and conditions in a title V permit, including any provisions that limit a source's potential to emit, unless expressly designated as not federally enforceable;

(4) Limitations and conditions that are part of an approved State Implementation Plan (SIP) or a Federal Implementation Plan (FIP);

(5) Limitations and conditions that are part of a Federal construction permit issued under 40 CFR 52.21 or any construction permit issued under regulations approved by the EPA in accordance with 40 CFR part 51;

(6) Limitations and conditions that are part of an operating permit where the permit and the permitting program pursuant to which it was issued meet all of the following criteria:

(i) The operating permit program has been submitted to and approved by EPA into a State implementation plan (SIP) under section 110 of the CAA;

(ii) The SIP imposes a legal obligation that operating permit holders adhere to the terms and limitations of such permits and provides that permits which do not conform to the operating permit program requirements and the requirements of EPA's underlying regulations may be deemed not "federally enforceable" by EPA;

(iii) The operating permit program requires that all emission limitations, controls, and other requirements imposed by such permits will be at least as stringent as any other applicable limitations and requirements contained in the SIP or enforceable under the SIP, and that the program may not issue permits that waive, or make less stringent, any limitations or requirements contained in or issued pursuant to the SIP, or that are otherwise "federally enforceable";

(iv) The limitations, controls, and requirements in the permit in question are permanent, quantifiable, and otherwise enforceable as a practical matter; and

(v) The permit in question was issued only after adequate and timely notice and opportunity for comment for EPA and the public.

(7) Limitations and conditions in a State rule or program that has been approved by the EPA under subpart E of this part for the purposes of implementing and enforcing section 112; and

(8) Individual consent agreements that the EPA has legal authority to create.

Fixed capital cost means the capital needed to provide all the depreciable components of an existing source.

Force majeure means, for purposes of §63.7, an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents the owner or operator from complying with the regulatory requirement to conduct performance tests within the specified timeframe despite the affected facility's best efforts to fulfill the obligation. Examples of such events are acts of nature, acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility.

Fugitive emissions means those emissions from a stationary source that could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening. Under section 112 of the Act, all fugitive emissions are to be considered in determining whether a stationary source is a major source.

Hazardous air pollutant means any air pollutant listed in or pursuant to section 112(b) of the Act.

Issuance of a part 70 permit will occur, if the State is the permitting authority, in accordance with the requirements of part 70 of this chapter and the applicable, approved State permit program. When the EPA is the permitting authority, issuance of a title V permit occurs immediately after the EPA takes final action on the final permit.

Major source means any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants, unless the Administrator establishes a lesser quantity, or in the case of radionuclides, different criteria from those specified in this sentence.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the

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potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Monitoring means the collection and use of measurement data or other information to control the operation of a process or pollution control device or to verify a work practice standard relative to assuring compliance with applicable requirements. Monitoring is composed of four elements:

(1) *Indicator(s) of performance*—the parameter or parameters you measure or observe for demonstrating proper operation of the pollution control measures or compliance with the applicable emissions limitation or standard. Indicators of performance may include direct or predicted emissions measurements (including opacity), operational parametric values that correspond to process or control device (and capture system) efficiencies or emissions rates, and recorded findings of inspection of work practice activities, materials tracking, or design characteristics. Indicators may be expressed as a single maximum or minimum value, a function of process variables (for example, within a range of pressure drops), a particular operational or work practice status (for example, a damper position, completion of a waste recovery task, materials tracking), or an interdependency between two or among more than two variables.

(2) *Measurement techniques*—the means by which you gather and record information of or about the indicators of performance. The components of the measurement technique include the detector type, location and installation specifications, inspection procedures, and quality assurance and quality control measures. Examples of measurement techniques include continuous emission monitoring systems, continuous opacity monitoring systems, continuous parametric monitoring systems, and manual inspections that include making records of process conditions or work practices.

(3) *Monitoring frequency*—the number of times you obtain and record monitoring data over a specified time interval. Examples of monitoring frequencies include at least four points equally spaced for each hour for continuous emissions or parametric monitoring systems, at least every 10 seconds for continuous opacity monitoring systems, and at least once per operating day (or week, month, etc.) for work practice or design inspections.

(4) *Averaging time*—the period over which you average and use data to verify proper operation of the pollution control approach or compliance with the emissions limitation or standard. Examples of averaging time include a 3-hour average in units of the emissions limitation, a 30-day rolling average emissions value, a daily average of a control device operational parametric range, and an instantaneous alarm.

New affected source means the collection of equipment, activities, or both within a single contiguous area and under common control that is included in a section 112(e) source category or subcategory that is subject to a section 112(d) or other relevant standard for new sources. This definition of "new affected source," and the criteria to be utilized in implementing it, shall apply to each section 112(d) standard for which the initial proposed rule is signed by the Administrator after June 30, 2002. Each relevant standard will define the term "new affected source," which will be the same as the "affected source" unless a different collection is warranted based on consideration of factors including:

- (1) Emission reduction impacts of controlling individual sources versus groups of sources;
- (2) Cost effectiveness of controlling individual equipment;
- (3) Flexibility to accommodate common control strategies;
- (4) Cost/benefits of emissions averaging;
- (5) Incentives for pollution prevention;
- (6) Feasibility and cost of controlling processes that share common equipment (e.g., product recovery devices);
- (7) Feasibility and cost of monitoring; and
- (8) Other relevant factors.

New source means any affected source the construction or reconstruction of which is commenced after the Administrator first proposes a relevant emission standard under this part establishing an emission standard applicable to such source.

One-hour period, unless otherwise defined in an applicable subpart, means any 60-minute period commencing on the hour.

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Opacity means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background. For continuous opacity monitoring systems, opacity means the fraction of incident light that is attenuated by an optical medium.

Owner or operator means any person who owns, leases, operates, controls, or supervises a stationary source.

Performance audit means a procedure to analyze blind samples, the content of which is known by the Administrator, simultaneously with the analysis of performance test samples in order to provide a measure of test data quality.

Performance evaluation means the conduct of relative accuracy testing, calibration error testing, and other measurements used in validating the continuous monitoring system data.

Performance test means the collection of data resulting from the execution of a test method (usually three emission test runs) used to demonstrate compliance with a relevant emission standard as specified in the performance test section of the relevant standard.

Permit modification means a change to a title V permit as defined in regulations codified in this chapter to implement title V of the Act (42 U.S.C. 7661).

Permit program means a comprehensive State operating permit system established pursuant to title V of the Act (42 U.S.C. 7661) and regulations codified in part 70 of this chapter and applicable State regulations, or a comprehensive Federal operating permit system established pursuant to title V of the Act and regulations codified in this chapter.

Permit revision means any permit modification or administrative permit amendment to a title V permit as defined in regulations codified in this chapter to implement title V of the Act (42 U.S.C. 7661).

Permitting authority means: (1) The State air pollution control agency, local agency, other State agency, or other agency authorized by the Administrator to carry out a permit program under part 70 of this chapter; or

- (2) The Administrator, in the case of EPA-implemented permit programs under title V of the Act (42 U.S.C. 7661).

Pollution Prevention means *source reduction* as defined under the Pollution Prevention Act (42 U.S.C. 13101-13109). The definition is as follows:

(1) *Source reduction* is any practice that:

- (i) Reduces the amount of any hazardous substance, pollutant, or contaminant entering any waste stream or otherwise released into the environment (including fugitive emissions) prior to recycling, treatment, or disposal; and
- (ii) Reduces the hazards to public health and the environment associated with the release of such substances, pollutants, or contaminants.

(2) The term *source reduction* includes equipment or technology modifications, process or procedure modifications, reformulation or redesign of products, substitution of raw materials, and improvements in housekeeping, maintenance, training, or inventory control.

(3) The term *source reduction* does not include any practice that alters the physical, chemical, or biological characteristics or the volume of a hazardous substance, pollutant, or contaminant through a process or activity which itself is not integral to and necessary for the production of a product or the providing of a service.

Potential to emit means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the stationary source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable.

Reconstruction, unless otherwise defined in a relevant standard, means the replacement of components of an affected or a previously nonaffected source to such an extent that:

(1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable new source; and

(2) It is technologically and economically feasible for the reconstructed source to meet the relevant standard(s) established by the Administrator (or a State) pursuant to section 112 of the Act. Upon reconstruction, an affected source, or a

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stationary source that becomes an affected source, is subject to relevant standards for new sources, including compliance dates, irrespective of any change in emissions of hazardous air pollutants from that source.

Regulation promulgation schedule means the schedule for the promulgation of emission standards under this part, established by the Administrator pursuant to section 112(e) of the Act and published in the FEDERAL REGISTER.

Relevant standard means:

- (1) An emission standard;
- (2) An alternative emission standard;
- (3) An alternative emission limitation; or

(4) An equivalent emission limitation established pursuant to section 112 of the Act that applies to the collection of equipment, activities, or both regulated by such standard or limitation. A relevant standard may include or consist of a design, equipment, work practice, or operational requirement, or other measure, process, method, system, or technique (including prohibition of emissions) that the Administrator (or a State) establishes for new or existing sources to which such standard or limitation applies. Every relevant standard established pursuant to section 112 of the Act includes subpart A of this part, as provided by §63.1(a)(4), and all applicable appendices of this part or of other parts of this chapter that are referenced in that standard.

Responsible official means one of the following:

- (1) For a corporation: A president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities and either:
 - (i) The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars); or
 - (ii) The delegation of authority to such representative is approved in advance by the Administrator.
- (2) For a partnership or sole proprietorship: a general partner or the proprietor, respectively.
- (3) For a municipality, State, Federal, or other public agency: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of the EPA).
- (4) For affected sources (as defined in this part) applying for or subject to a title V permit: "responsible official" shall have the same meaning as defined in part 70 or Federal title V regulations in this chapter (42 U.S.C. 7661), whichever is applicable.

Run means one of a series of emission or other measurements needed to determine emissions for a representative operating period or cycle as specified in this part.

Shutdown means the cessation of operation of an affected source or portion of an affected source for any purpose.

Six-minute period means, with respect to opacity determinations, any one of the 10 equal parts of a 1-hour period.

Source at a Performance Track member facility means a major or area source located at a facility which has been accepted by EPA for membership in the Performance Track Program (as described at www.epa.gov/PerformanceTrack) and is still a member of the Program. The Performance Track Program is a voluntary program that encourages continuous environmental improvement through the use of environmental management systems, local community outreach, and measurable results.

Standard conditions means a temperature of 293 K (68 °F) and a pressure of 101.3 kilopascals (29.92 in. Hg).

Startup means the setting in operation of an affected source or portion of an affected source for any purpose.

State means all non-Federal authorities, including local agencies, interstate associations, and State-wide programs, that have delegated authority to implement: (1) The provisions of this part and/or (2) the permit program established under part 70 of this chapter. The term State shall have its conventional meaning where clear from the context.

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Stationary source means any building, structure, facility, or installation which emits or may emit any air pollutant.

Test method means the validated procedure for sampling, preparing, and analyzing for an air pollutant specified in a relevant standard as the performance test procedure. The test method may include methods described in an appendix of this chapter, test methods incorporated by reference in this part, or methods validated for an application through procedures in Method 301 of appendix A of this part.

Title V permit means any permit issued, renewed, or revised pursuant to Federal or State regulations established to implement title V of the Act (42 U.S.C. 7661). A title V permit issued by a State permitting authority is called a part 70 permit in this part.

Visible emission means the observation of an emission of opacity or optical density above the threshold of vision.

Working day means any day on which Federal Government offices (or State government offices for a State that has obtained delegation under section 112(I)) are open for normal business. Saturdays, Sundays, and official Federal (or where delegated, State) holidays are not working days.

[59 FR 12430, Mar. 16, 1994, as amended at 67 FR 16596, Apr. 5, 2002; 68 FR 32600, May 30, 2003; 69 FR 21752, Apr. 22, 2004; 72 FR 27443, May 16, 2007]

§63.3 Units and abbreviations.

Used in this part are abbreviations and symbols of units of measure. These are defined as follows:

(a) *System International (SI) units of measure:*

A = ampere
g = gram
Hz = hertz
J = joule
°K = degree Kelvin
kg = kilogram
l = liter
m = meter
m³ = cubic meter
mg = milligram = 10⁻³ gram
ml = milliliter = 10⁻³ liter
mm = millimeter = 10⁻³ meter
Mg = megagram = 10⁶ gram = metric ton
MJ = megajoule
mol = mole
N = newton
ng = nanogram = 10⁻⁹ gram
nm = nanometer = 10⁻⁹ meter
Pa = pascal
s = second
V = volt
W = watt
Ω = ohm
μg = microgram = 10⁻⁶ gram
μl = microliter = 10⁻⁶ liter
(b) *Other units of measure:*
Btu = British thermal unit

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°C = degree Celsius (centigrade)
cal = calorie
cfm = cubic feet per minute
cc = cubic centimeter
cu ft = cubic feet
d = day
dcf = dry cubic feet
dcm = dry cubic meter
dscf = dry cubic feet at standard conditions
dscm = dry cubic meter at standard conditions
eq = equivalent
°F degree Fahrenheit
ft = feet
ft² = square feet
ft³ = cubic feet
gal = gallon
gr = grain
g-eq = gram equivalent
g-mole = gram mole
hr = hour
in. = inch
in. H₂O = inches of water
K = 1,000
kcal = kilocalorie
lb = pound
lpm = liter per minute
meq = milliequivalent
min = minute
MW = molecular weight
oz = ounces
ppb = parts per billion
ppbw = parts per billion by weight
ppbv = parts per billion by volume
ppm = parts per million
ppmw = parts per million by weight
ppmv = parts per million by volume
psia = pounds per square inch absolute
psig = pounds per square inch gage
°R = degree Rankine
scf = cubic feet at standard conditions
scfh = cubic feet at standard conditions per hour
scm = cubic meter at standard conditions
scmm = cubic meter at standard conditions per minute
sec = second

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sq ft = square feet
std = at standard conditions
v/v = volume per volume
yd² = square yards
yr = year

(c) *Miscellaneous:*

act = actual
avg = average
I.D. = inside diameter
M = molar
N = normal
O.D. = outside diameter
% = percent

[59 FR 12430, Mar. 16, 1994, as amended at 67 FR 16598, Apr. 5, 2002]

§63.4 Prohibited activities and circumvention.

(a) *Prohibited activities.* (1) No owner or operator subject to the provisions of this part must operate any affected source in violation of the requirements of this part. Affected sources subject to and in compliance with either an extension of compliance or an exemption from compliance are not in violation of the requirements of this part. An extension of compliance can be granted by the Administrator under this part; by a State with an approved permit program; or by the President under section 112(i)(4) of the Act.

(2) No owner or operator subject to the provisions of this part shall fail to keep records, notify, report, or revise reports as required under this part.

(3)-(5) [Reserved]

(b) *Circumvention.* No owner or operator subject to the provisions of this part shall build, erect, install, or use any article, machine, equipment, or process to conceal an emission that would otherwise constitute noncompliance with a relevant standard. Such concealment includes, but is not limited to—

(1) The use of diluents to achieve compliance with a relevant standard based on the concentration of a pollutant in the effluent discharged to the atmosphere;

(2) The use of gaseous diluents to achieve compliance with a relevant standard for visible emissions; and

(c) *Fragmentation.* Fragmentation after November 15, 1990 which divides ownership of an operation, within the same facility among various owners where there is no real change in control, will not affect applicability. The owner and operator must not use fragmentation or phasing of reconstruction activities (i.e., intentionally dividing reconstruction into multiple parts for purposes of avoiding new source requirements) to avoid becoming subject to new source requirements.

[59 FR 12430, Mar. 16, 1994, as amended at 67 FR 16598, Apr. 5, 2002]

§63.5 Preconstruction review and notification requirements.

(a) *Applicability.* (1) This section implements the preconstruction review requirements of section 112(i)(1). After the effective date of a relevant standard, promulgated pursuant to section 112(d), (f), or (h) of the Act, under this part, the preconstruction review requirements in this section apply to the owner or operator of new affected sources and reconstructed affected sources that are major-emitting as specified in this section. New and reconstructed affected sources that commence construction or reconstruction before the effective date of a relevant standard are not subject to the preconstruction review requirements specified in paragraphs (b)(3), (d), and (e) of this section.

(2) This section includes notification requirements for new affected sources and reconstructed affected sources that are not major-emitting affected sources and that are or become subject to a relevant promulgated emission standard after the effective date of a relevant standard promulgated under this part.

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(b) *Requirements for existing, newly constructed, and reconstructed sources.* (1) A new affected source for which construction commences after proposal of a relevant standard is subject to relevant standards for new affected sources, including compliance dates. An affected source for which reconstruction commences after proposal of a relevant standard is subject to relevant standards for new sources, including compliance dates, irrespective of any change in emissions of hazardous air pollutants from that source.

(2) [Reserved]

(3) After the effective date of any relevant standard promulgated by the Administrator under this part, no person may, without obtaining written approval in advance from the Administrator in accordance with the procedures specified in paragraphs (d) and (e) of this section, do any of the following:

- (i) Construct a new affected source that is major-emitting and subject to such standard;
- (ii) Reconstruct an affected source that is major-emitting and subject to such standard; or
- (iii) Reconstruct a major source such that the source becomes an affected source that is major-emitting and subject to the standard.

(4) After the effective date of any relevant standard promulgated by the Administrator under this part, an owner or operator who constructs a new affected source that is not major-emitting or reconstructs an affected source that is not major-emitting that is subject to such standard, or reconstructs a source such that the source becomes an affected source subject to the standard, must notify the Administrator of the intended construction or reconstruction. The notification must be submitted in accordance with the procedures in §63.9(b).

(5) [Reserved]

(6) After the effective date of any relevant standard promulgated by the Administrator under this part, equipment added (or a process change) to an affected source that is within the scope of the definition of affected source under the relevant standard must be considered part of the affected source and subject to all provisions of the relevant standard established for that affected source.

(c) [Reserved]

(d) *Application for approval of construction or reconstruction.* The provisions of this paragraph implement section 112(j)(1) of the Act.

(1) *General application requirements.* (i) An owner or operator who is subject to the requirements of paragraph (b)(3) of this section must submit to the Administrator an application for approval of the construction or reconstruction. The application must be submitted as soon as practicable before actual construction or reconstruction begins. The application for approval of construction or reconstruction may be used to fulfill the initial notification requirements of §63.9(b)(5). The owner or operator may submit the application for approval well in advance of the date actual construction or reconstruction begins in order to ensure a timely review by the Administrator and that the planned date to begin will not be delayed.

(ii) A separate application shall be submitted for each construction or reconstruction. Each application for approval of construction or reconstruction shall include at a minimum:

- (A) The applicant's name and address;
- (B) A notification of intention to construct a new major affected source or make any physical or operational change to a major affected source that may meet or has been determined to meet the criteria for a reconstruction, as defined in §63.2 or in the relevant standard;
- (C) The address (i.e., physical location) or proposed address of the source;
- (D) An identification of the relevant standard that is the basis of the application;
- (E) The expected date of the beginning of actual construction or reconstruction;
- (F) The expected completion date of the construction or reconstruction;
- (G) [Reserved]

(H) The type and quantity of hazardous air pollutants emitted by the source, reported in units and averaging times and in accordance with the test methods specified in the relevant standard, or if actual emissions data are not yet available, an

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estimate of the type and quantity of hazardous air pollutants expected to be emitted by the source reported in units and averaging times specified in the relevant standard. The owner or operator may submit percent reduction information if a relevant standard is established in terms of percent reduction. However, operating parameters, such as flow rate, shall be included in the submission to the extent that they demonstrate performance and compliance; and

(I) [Reserved]

(J) Other information as specified in paragraphs (d)(2) and (d)(3) of this section.

(iii) An owner or operator who submits estimates or preliminary information in place of the actual emissions data and analysis required in paragraphs (d)(1)(ii)(H) and (d)(2) of this section shall submit the actual, measured emissions data and other correct information as soon as available but no later than with the notification of compliance status required in §63.9(h) (see §63.9(h)(5)).

(2) *Application for approval of construction.* Each application for approval of construction must include, in addition to the information required in paragraph (d)(1)(ii) of this section, technical information describing the proposed nature, size, design, operating design capacity, and method of operation of the source, including an identification of each type of emission point for each type of hazardous air pollutant that is emitted (or could reasonably be anticipated to be emitted) and a description of the planned air pollution control system (equipment or method) for each emission point. The description of the equipment to be used for the control of emissions must include each control device for each hazardous air pollutant and the estimated control efficiency (percent) for each control device. The description of the method to be used for the control of emissions must include an estimated control efficiency (percent) for that method. Such technical information must include calculations of emission estimates in sufficient detail to permit assessment of the validity of the calculations.

(3) *Application for approval of reconstruction.* Each application for approval of reconstruction shall include, in addition to the information required in paragraph (d)(1)(ii) of this section—

- (i) A brief description of the affected source and the components that are to be replaced;
- (ii) A description of present and proposed emission control systems (i.e., equipment or methods). The description of the equipment to be used for the control of emissions shall include each control device for each hazardous air pollutant and the estimated control efficiency (percent) for each control device. The description of the method to be used for the control of emissions shall include an estimated control efficiency (percent) for that method. Such technical information shall include calculations of emission estimates in sufficient detail to permit assessment of the validity of the calculations;
- (iii) An estimate of the fixed capital cost of the replacements and of constructing a comparable entirely new source;
- (iv) The estimated life of the affected source after the replacements; and
- (v) A discussion of any economic or technical limitations the source may have in complying with relevant standards or other requirements after the proposed replacements. The discussion shall be sufficiently detailed to demonstrate to the Administrator's satisfaction that the technical or economic limitations affect the source's ability to comply with the relevant standard and how they do so.

(vi) If in the application for approval of reconstruction the owner or operator designates the affected source as a reconstructed source and declares that there are no economic or technical limitations to prevent the source from complying with all relevant standards or other requirements, the owner or operator need not submit the information required in paragraphs (d)(3)(iii) through (d)(3)(v) of this section.

(4) *Additional information.* The Administrator may request additional relevant information after the submittal of an application for approval of construction or reconstruction.

(e) *Approval of construction or reconstruction.* (1)(i) If the Administrator determines that, if properly constructed, or reconstructed, and operated, a new or existing source for which an application under paragraph (d) of this section was submitted will not cause emissions in violation of the relevant standard(s) and any other federally enforceable requirements, the Administrator will approve the construction or reconstruction.

(ii) In addition, in the case of reconstruction, the Administrator's determination under this paragraph will be based on:

- (A) The fixed capital cost of the replacements in comparison to the fixed capital cost that would be required to construct a comparable entirely new source;
- (B) The estimated life of the source after the replacements compared to the life of a comparable entirely new source;

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- (C) The extent to which the components being replaced cause or contribute to the emissions from the source; and
- (D) Any economic or technical limitations on compliance with relevant standards that are inherent in the proposed replacements.
- (2)(i) The Administrator will notify the owner or operator in writing of approval or intention to deny approval of construction or reconstruction within 60 calendar days after receipt of sufficient information to evaluate an application submitted under paragraph (d) of this section. The 60-day approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete. The Administrator will notify the owner or operator in writing of the status of his/her application, that is, whether the application contains sufficient information to make a determination, within 30 calendar days after receipt of the original application and within 30 calendar days after receipt of any supplementary information that is submitted.
- (ii) When notifying the owner or operator that his/her application is not complete, the Administrator will specify the information needed to complete the application and provide notice of opportunity for the applicant to present, in writing, within 30 calendar days after he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.
- (3) Before denying any application for approval of construction or reconstruction, the Administrator will notify the applicant of the Administrator's intention to issue the denial together with—
- (i) Notice of the information and findings on which the intended denial is based; and
- (ii) Notice of opportunity for the applicant to present, in writing, within 30 calendar days after he/she is notified of the intended denial, additional information or arguments to the Administrator to enable further action on the application.
- (4) A final determination to deny any application for approval will be in writing and will specify the grounds on which the denial is based. The final determination will be made within 60 calendar days of presentation of additional information or arguments (if the application is complete), or within 60 calendar days after the final date specified for presentation if no presentation is made.
- (5) Neither the submission of an application for approval nor the Administrator's approval of construction or reconstruction shall—
- (i) Relieve an owner or operator of legal responsibility for compliance with any applicable provisions of this part or with any other applicable Federal, State, or local requirement; or
- (ii) Prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.
- (f) *Approval of construction or reconstruction based on prior State preconstruction review.* (1) Preconstruction review procedures that a State utilizes for other purposes may also be utilized for purposes of this section if the procedures are substantially equivalent to those specified in this section. The Administrator will approve an application for construction or reconstruction specified in paragraphs (b)(3) and (d) of this section if the owner or operator of a new affected source or reconstructed affected source, who is subject to such requirement meets the following conditions:
- (i) The owner or operator of the new affected source or reconstructed affected source has undergone a preconstruction review and approval process in the State in which the source is (or would be) located and has received a federally enforceable construction permit that contains a finding that the source will meet the relevant promulgated emission standard, if the source is properly built and operated.
- (ii) Provide a statement from the State or other evidence (such as State regulations) that it considered the factors specified in paragraph (e)(1) of this section.
- (2) The owner or operator must submit to the Administrator the request for approval of construction or reconstruction under this paragraph (f)(2) no later than the application deadline specified in paragraph (d)(1) of this section (see also §63.9(b)(2)). The owner or operator must include in the request information sufficient for the Administrator's determination. The Administrator will evaluate the owner or operator's request in accordance with the procedures specified in paragraph (e) of this section. The Administrator may request additional relevant information after the submittal of a request for approval of construction or reconstruction under this paragraph (f)(2).

[59 FR 12430, Mar. 16, 1994, as amended at 67 FR 16598, Apr. 5, 2002]

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§63.6 Compliance with standards and maintenance requirements.

- (a) *Applicability.* (1) The requirements in this section apply to the owner or operator of affected sources for which any relevant standard has been established pursuant to section 112 of the Act and the applicability of such requirements is set out in accordance with §63.1(a)(4) unless—
- (i) The Administrator (or a State with an approved permit program) has granted an extension of compliance consistent with paragraph (i) of this section; or
- (ii) The President has granted an exemption from compliance with any relevant standard in accordance with section 112(i)(4) of the Act.
- (2) If an area source that otherwise would be subject to an emission standard or other requirement established under this part if it were a major source subsequently increases its emissions of hazardous air pollutants (or its potential to emit hazardous air pollutants) such that the source is a major source, such source shall be subject to the relevant emission standard or other requirement.
- (b) *Compliance dates for new and reconstructed sources.* (1) Except as specified in paragraphs (b)(3) and (4) of this section, the owner or operator of a new or reconstructed affected source for which construction or reconstruction commences after proposal of a relevant standard that has an initial startup before the effective date of a relevant standard established under this part pursuant to section 112(d), (f), or (h) of the Act must comply with such standard not later than the standard's effective date.
- (2) Except as specified in paragraphs (b)(3) and (4) of this section, the owner or operator of a new or reconstructed affected source that has an initial startup after the effective date of a relevant standard established under this part pursuant to section 112(d), (f), or (h) of the Act must comply with such standard upon startup of the source.
- (3) The owner or operator of an affected source for which construction or reconstruction is commenced after the proposal date of a relevant standard established under this part pursuant to section 112(d), 112(f), or 112(h) of the Act but before the effective date (that is, promulgation) of such standard shall comply with the relevant emission standard not later than the date 3 years after the effective date if:
- (i) The promulgated standard (that is, the relevant standard) is more stringent than the proposed standard; for purposes of this paragraph, a finding that controls or compliance methods are "more stringent" must include control technologies or performance criteria and compliance or compliance assurance methods that are different but are substantially equivalent to those required by the promulgated rule, as determined by the Administrator (or his or her authorized representative); and
- (ii) The owner or operator complies with the standard as proposed during the 3-year period immediately after the effective date.
- (4) The owner or operator of an affected source for which construction or reconstruction is commenced after the proposal date of a relevant standard established pursuant to section 112(d) of the Act but before the proposal date of a relevant standard established pursuant to section 112(f) shall not be required to comply with the section 112(f) emission standard until the date 10 years after the date construction or reconstruction is commenced, except that, if the section 112(f) standard is promulgated more than 10 years after construction or reconstruction is commenced, the owner or operator must comply with the standard as provided in paragraphs (b)(1) and (2) of this section.
- (5) The owner or operator of a new source that is subject to the compliance requirements of paragraph (b)(3) or (4) of this section must notify the Administrator in accordance with §63.9(d).
- (6) [Reserved]
- (7) When an area source becomes a major source by the addition of equipment or operations that meet the definition of new affected source in the relevant standard, the portion of the existing facility that is a new affected source must comply with all requirements of that standard applicable to new sources. The source owner or operator must comply with the relevant standard upon startup.
- (c) *Compliance dates for existing sources.* (1) After the effective date of a relevant standard established under this part pursuant to section 112(d) or 112(h) of the Act, the owner or operator of an existing source shall comply with such standard by the compliance date established by the Administrator in the applicable subpart(s) of this part. Except as otherwise provided for in section 112 of the Act, in no case will the compliance date established for an existing source in an applicable subpart of this part exceed 3 years after the effective date of such standard.

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(2) If an existing source is subject to a standard established under this part pursuant to section 112(f) of the Act, the owner or operator must comply with the standard by the date 90 days after the standard's effective date, or by the date specified in an extension granted to the source by the Administrator under paragraph (1)(4)(ii) of this section, whichever is later.

(3)-(4) [Reserved]

(5) Except as provided in paragraph (b)(7) of this section, the owner or operator of an area source that increases its emissions of (or its potential to emit) hazardous air pollutants such that the source becomes a major source shall be subject to relevant standards for existing sources. Such sources must comply by the date specified in the standards for existing area sources that become major sources. If no such compliance date is specified in the standards, the source shall have a period of time to comply with the relevant emission standard that is equivalent to the compliance period specified in the relevant standard for existing sources in existence at the time the standard becomes effective.

(d) [Reserved]

(e) *Operation and maintenance requirements.* (1)(i) At all times, including periods of startup, shutdown, and malfunction, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. During a period of startup, shutdown, or malfunction, this general duty to minimize emissions requires that the owner or operator reduce emissions from the affected source to the greatest extent which is consistent with safety and good air pollution control practices. The general duty to minimize emissions during a period of startup, shutdown, or malfunction does not require the owner or operator to achieve emission levels that would be required by the applicable standard at other times if this is not consistent with safety and good air pollution control practices, nor does it require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures (including the startup, shutdown, and malfunction plan required in paragraph (e)(3) of this section), review of operation and maintenance records, and inspection of the source.

(ii) Malfunctions must be corrected as soon as practicable after their occurrence. To the extent that an unexpected event arises during a startup, shutdown, or malfunction, an owner or operator must comply by minimizing emissions during such a startup, shutdown, and malfunction event consistent with safety and good air pollution control practices.

(iii) Operation and maintenance requirements established pursuant to section 112 of the Act are enforceable independent of emissions limitations or other requirements in relevant standards.

(2) [Reserved]

(3) *Startup, shutdown, and malfunction plan.* (i) The owner or operator of an affected source must develop a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction; and a program of corrective action for malfunctioning process, air pollution control, and monitoring equipment used to comply with the relevant standard. The startup, shutdown, and malfunction plan does not need to address any scenario that would not cause the source to exceed an applicable emission limitation in the relevant standard. This plan must be developed by the owner or operator by the source's compliance date for that relevant standard. The purpose of the startup, shutdown, and malfunction plan is to—

(A) Ensure that, at all times, the owner or operator operates and maintains each affected source, including associated air pollution control and monitoring equipment, in a manner which satisfies the general duty to minimize emissions established by paragraph (e)(1)(i) of this section;

(B) Ensure that owners or operators are prepared to correct malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of hazardous air pollutants; and

(C) Reduce the reporting burden associated with periods of startup, shutdown, and malfunction (including corrective action taken to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation).

(ii) [Reserved]

(iii) When actions taken by the owner or operator during a startup or shutdown (and the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards), or malfunction (including actions

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taken to correct a malfunction) are consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, the owner or operator must keep records for that event which demonstrate that the procedures specified in the plan were followed. These records may take the form of a "checklist," or other effective form of recordkeeping that confirms conformance with the startup, shutdown, and malfunction plan and describes the actions taken for that event. In addition, the owner or operator must keep records of these events as specified in paragraph 63.10(b), including records of the occurrence and duration of each startup or shutdown (if the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards), or malfunction of operation and each malfunction of the air pollution control and monitoring equipment. Furthermore, the owner or operator shall confirm that actions taken during the relevant reporting period during periods of startup, shutdown, and malfunction were consistent with the affected source's startup, shutdown and malfunction plan in the semiannual (or more frequent) startup, shutdown, and malfunction report required in §63.10(d)(5).

(iv) If an action taken by the owner or operator during a startup, shutdown, or malfunction (including an action taken to correct a malfunction) is not consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, and the source exceeds any applicable emission limitation in the relevant emission standard, then the owner or operator must record the actions taken for that event and must report such actions within 2 working days after commencing actions inconsistent with the plan, followed by a letter within 7 working days after the end of the event, in accordance with §63.10(d)(5) (unless the owner or operator makes alternative reporting arrangements, in advance, with the Administrator).

(v) The owner or operator must maintain at the affected source a current startup, shutdown, and malfunction plan and must make the plan available upon request for inspection and copying by the Administrator. In addition, if the startup, shutdown, and malfunction plan is subsequently revised as provided in paragraph (e)(3)(viii) of this section, the owner or operator must maintain at the affected source each previous (i.e., superseded) version of the startup, shutdown, and malfunction plan, and must make each such previous version available for inspection and copying by the Administrator for a period of 5 years after revision of the plan. If at any time after adoption of a startup, shutdown, and malfunction plan the affected source ceases operation or is otherwise no longer subject to the provisions of this part, the owner or operator must retain a copy of the most recent plan for 5 years from the date the source ceases operation or is no longer subject to this part and must make the plan available upon request for inspection and copying by the Administrator. The Administrator may at any time request in writing that the owner or operator submit a copy of any startup, shutdown, and malfunction plan (or a portion thereof) which is maintained at the affected source or in the possession of the owner or operator. Upon receipt of such a request, the owner or operator must promptly submit a copy of the requested plan (or a portion thereof) to the Administrator. The owner or operator may elect to submit the required copy of any startup, shutdown, and malfunction plan to the Administrator in an electronic format. If the owner or operator claims that any portion of such a startup, shutdown, and malfunction plan is confidential business information entitled to protection from disclosure under section 114(c) of the Act or 40 CFR 2.301, the material which is claimed as confidential must be clearly designated in the submission.

(vi) To satisfy the requirements of this section to develop a startup, shutdown, and malfunction plan, the owner or operator may use the affected source's standard operating procedures (SOP) manual, or an Occupational Safety and Health Administration (OSHA) or other plan, provided the alternative plans meet all the requirements of this section and are made available for inspection or submitted when requested by the Administrator.

(vii) Based on the results of a determination made under paragraph (e)(1)(i) of this section, the Administrator may require that an owner or operator of an affected source make changes to the startup, shutdown, and malfunction plan for that source. The Administrator must require appropriate revisions to a startup, shutdown, and malfunction plan, if the Administrator finds that the plan:

(A) Does not address a startup, shutdown, or malfunction event that has occurred;

(B) Fails to provide for the operation of the source (including associated air pollution control and monitoring equipment) during a startup, shutdown, or malfunction event in a manner consistent with the general duty to minimize emissions established by paragraph (e)(1)(i) of this section;

(C) Does not provide adequate procedures for correcting malfunctioning process and/or air pollution control and monitoring equipment as quickly as practicable; or

(D) Includes an event that does not meet the definition of startup, shutdown, or malfunction listed in §63.2.

(viii) The owner or operator may periodically revise the startup, shutdown, and malfunction plan for the affected source as necessary to satisfy the requirements of this part or to reflect changes in equipment or procedures at the affected source. Unless the permitting authority provides otherwise, the owner or operator may make such revisions to the startup, shutdown,

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and malfunction plan without prior approval by the Administrator or the permitting authority. However, each such revision to a startup, shutdown, and malfunction plan must be reported in the semiannual report required by §63.10(d)(5). If the startup, shutdown, and malfunction plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction but was not included in the startup, shutdown, and malfunction plan at the time the owner or operator developed the plan, the owner or operator must revise the startup, shutdown, and malfunction plan within 45 days after the event to include detailed procedures for operating and maintaining the source during similar malfunction events and a program of corrective action for similar malfunctions of process or air pollution control and monitoring equipment. In the event that the owner or operator makes any revision to the startup, shutdown, and malfunction plan which alters the scope of the activities at the source which are deemed to be a startup, shutdown, or malfunction, or otherwise modifies the applicability of any emission limit, work practice requirement, or other requirement in a standard established under this part, the revised plan shall not take effect until after the owner or operator has provided a written notice describing the revision to the permitting authority.

(ix) The title V permit for an affected source must require that the owner or operator develop a startup, shutdown, and malfunction plan which conforms to the provisions of this part, but may do so by citing to the relevant subpart or subparagraphs of paragraph (e) of this section. However, any revisions made to the startup, shutdown, and malfunction plan in accordance with the procedures established by this part shall not be deemed to constitute permit revisions under part 70 or part 71 of this chapter and the elements of the startup, shutdown, and malfunction plan shall not be considered an applicable requirement as defined in §70.2 and §71.2 of this chapter. Moreover, none of the procedures specified by the startup, shutdown, and malfunction plan for an affected source shall be deemed to fall within the permit shield provision in section 504(f) of the Act.

(f) *Compliance with nonopacity emission standards—(1) Applicability.* The non-opacity emission standards set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction, and as otherwise specified in an applicable subpart. If a startup, shutdown, or malfunction of one portion of an affected source does not affect the ability of particular emission points within other portions of the affected source to comply with the non-opacity emission standards set forth in this part, then that emission point must still be required to comply with the non-opacity emission standards and other applicable requirements.

(2) *Methods for determining compliance.* (i) The Administrator will determine compliance with nonopacity emission standards in this part based on the results of performance tests conducted according to the procedures in §63.7, unless otherwise specified in an applicable subpart of this part.

(ii) The Administrator will determine compliance with nonopacity emission standards in this part by evaluation of an owner or operator's conformance with operation and maintenance requirements, including the evaluation of monitoring data, as specified in §63.6(e) and applicable subparts of this part.

(iii) If an affected source conducts performance testing at startup to obtain an operating permit in the State in which the source is located, the results of such testing may be used to demonstrate compliance with a relevant standard if—

(A) The performance test was conducted within a reasonable amount of time before an initial performance test is required to be conducted under the relevant standard;

(B) The performance test was conducted under representative operating conditions for the source;

(C) The performance test was conducted and the resulting data were reduced using EPA-approved test methods and procedures, as specified in §63.7(e) of this subpart; and

(D) The performance test was appropriately quality-assured, as specified in §63.7(c).

(iv) The Administrator will determine compliance with design, equipment, work practice, or operational emission standards in this part by review of records, inspection of the source, and other procedures specified in applicable subparts of this part.

(v) The Administrator will determine compliance with design, equipment, work practice, or operational emission standards in this part by evaluation of an owner or operator's conformance with operation and maintenance requirements, as specified in paragraph (e) of this section and applicable subparts of this part.

(3) *Finding of compliance.* The Administrator will make a finding concerning an affected source's compliance with a non-opacity emission standard, as specified in paragraphs (f)(1) and (2) of this section, upon obtaining all the compliance information required by the relevant standard (including the written reports of performance test results, monitoring results,

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and other information, if applicable), and information available to the Administrator pursuant to paragraph (e)(1)(i) of this section.

(g) *Use of an alternative nonopacity emission standard.* (1) If, in the Administrator's judgment, an owner or operator of an affected source has established that an alternative means of emission limitation will achieve a reduction in emissions of a hazardous air pollutant from an affected source at least equivalent to the reduction in emissions of that pollutant from that source achieved under any design, equipment, work practice, or operational emission standard, or combination thereof, established under this part pursuant to section 112(h) of the Act, the Administrator will publish in the FEDERAL REGISTER a notice permitting the use of the alternative emission standard for purposes of compliance with the promulgated standard. Any FEDERAL REGISTER notice under this paragraph shall be published only after the public is notified and given the opportunity to comment. Such notice will restrict the permission to the stationary source(s) or category(ies) of sources from which the alternative emission standard will achieve equivalent emission reductions. The Administrator will condition permission in such notice on requirements to assure the proper operation and maintenance of equipment and practices required for compliance with the alternative emission standard and other requirements, including appropriate quality assurance and quality control requirements, that are deemed necessary.

(2) An owner or operator requesting permission under this paragraph shall, unless otherwise specified in an applicable subpart, submit a proposed test plan or the results of testing and monitoring in accordance with §63.7 and §63.8, a description of the procedures followed in testing or monitoring, and a description of pertinent conditions during testing or monitoring. Any testing or monitoring conducted to request permission to use an alternative nonopacity emission standard shall be appropriately quality assured and quality controlled, as specified in §63.7 and §63.8.

(3) The Administrator may establish general procedures in an applicable subpart that accomplish the requirements of paragraphs (g)(1) and (g)(2) of this section.

(h) *Compliance with opacity and visible emission standards—(1) Applicability.* The opacity and visible emission standards set forth in this part must apply at all times except during periods of startup, shutdown, and malfunction, and as otherwise specified in an applicable subpart. If a startup, shutdown, or malfunction of one portion of an affected source does not affect the ability of particular emission points within other portions of the affected source to comply with the opacity and visible emission standards set forth in this part, then that emission point shall still be required to comply with the opacity and visible emission standards and other applicable requirements.

(2) *Methods for determining compliance.* (i) The Administrator will determine compliance with opacity and visible emission standards in this part based on the results of the test method specified in an applicable subpart. Whenever a continuous opacity monitoring system (COMS) is required to determine compliance with numerical opacity emission standards in this part, compliance with opacity emission standards in this part shall be determined by using the results from the COMS. Whenever an opacity emission test method is not specified, compliance with opacity emission standards in this part shall be determined by conducting observations in accordance with Test Method 9 in appendix A of part 60 of this chapter or the method specified in paragraph (h)(7)(ii) of this section. Whenever a visible emission test method is not specified, compliance with visible emission standards in this part shall be determined by conducting observations in accordance with Test Method 22 in appendix A of part 60 of this chapter.

(ii) [Reserved]

(iii) If an affected source undergoes opacity or visible emission testing at startup to obtain an operating permit in the State in which the source is located, the results of such testing may be used to demonstrate compliance with a relevant standard if—

(A) The opacity or visible emission test was conducted within a reasonable amount of time before a performance test is required to be conducted under the relevant standard;

(B) The opacity or visible emission test was conducted under representative operating conditions for the source;

(C) The opacity or visible emission test was conducted and the resulting data were reduced using EPA-approved test methods and procedures, as specified in §63.7(e); and

(D) The opacity or visible emission test was appropriately quality-assured, as specified in §63.7(c) of this section.

(3) [Reserved]

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(4) *Notification of opacity or visible emission observations.* The owner or operator of an affected source shall notify the Administrator in writing of the anticipated date for conducting opacity or visible emission observations in accordance with §63.9(f), if such observations are required for the source by a relevant standard.

(5) *Conduct of opacity or visible emission observations.* When a relevant standard under this part includes an opacity or visible emission standard, the owner or operator of an affected source shall comply with the following:

(i) For the purpose of demonstrating initial compliance, opacity or visible emission observations shall be conducted concurrently with the initial performance test required in §63.7 unless one of the following conditions applies:

(A) If no performance test under §63.7 is required, opacity or visible emission observations shall be conducted within 60 days after achieving the maximum production rate at which a new or reconstructed source will be operated, but not later than 120 days after initial startup of the source, or within 120 days after the effective date of the relevant standard in the case of new sources that start up before the standard's effective date. If no performance test under §63.7 is required, opacity or visible emission observations shall be conducted within 120 days after the compliance date for an existing or modified source; or

(B) If visibility or other conditions prevent the opacity or visible emission observations from being conducted concurrently with the initial performance test required under §63.7, or within the time period specified in paragraph (h)(5)(i)(A) of this section, the source's owner or operator shall reschedule the opacity or visible emission observations as soon after the initial performance test, or time period, as possible, but not later than 30 days thereafter, and shall advise the Administrator of the rescheduled date. The rescheduled opacity or visible emission observations shall be conducted (to the extent possible) under the same operating conditions that existed during the initial performance test conducted under §63.7. The visible emissions observer shall determine whether visibility or other conditions prevent the opacity or visible emission observations from being made concurrently with the initial performance test in accordance with procedures contained in Test Method 9 or Test Method 22 in appendix A of part 60 of this chapter.

(ii) For the purpose of demonstrating initial compliance, the minimum total time of opacity observations shall be 3 hours (30 6-minute averages) for the performance test or other required set of observations (e.g., for fugitive-type emission sources subject only to an opacity emission standard).

(iii) The owner or operator of an affected source to which an opacity or visible emission standard in this part applies shall conduct opacity or visible emission observations in accordance with the provisions of this section, record the results of the evaluation of emissions, and report to the Administrator the opacity or visible emission results in accordance with the provisions of §63.10(d).

(iv) [Reserved]

(v) Opacity readings of portions of plumes that contain condensed, uncombined water vapor shall not be used for purposes of determining compliance with opacity emission standards.

(6) *Availability of records.* The owner or operator of an affected source shall make available, upon request by the Administrator, such records that the Administrator deems necessary to determine the conditions under which the visual observations were made and shall provide evidence indicating proof of current visible observer emission certification.

(7) *Use of a continuous opacity monitoring system.* (i) The owner or operator of an affected source required to use a continuous opacity monitoring system (COMS) shall record the monitoring data produced during a performance test required under §63.7 and shall furnish the Administrator a written report of the monitoring results in accordance with the provisions of §63.10(e)(4).

(ii) Whenever an opacity emission test method has not been specified in an applicable subpart, or an owner or operator of an affected source is required to conduct Test Method 9 observations (see appendix A of part 60 of this chapter), the owner or operator may submit, for compliance purposes, COMS data results produced during any performance test required under §63.7 in lieu of Method 9 data. If the owner or operator elects to submit COMS data for compliance with the opacity emission standard, he or she shall notify the Administrator of that decision, in writing, simultaneously with the notification under §63.7(b) of the date the performance test is scheduled to begin. Once the owner or operator of an affected source has notified the Administrator to that effect, the COMS data results will be used to determine opacity compliance during subsequent performance tests required under §63.7, unless the owner or operator notifies the Administrator in writing to the contrary not later than with the notification under §63.7(b) of the date the subsequent performance test is scheduled to begin.

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(iii) For the purposes of determining compliance with the opacity emission standard during a performance test required under §63.7 using COMS data, the COMS data shall be reduced to 6-minute averages over the duration of the mass emission performance test.

(iv) The owner or operator of an affected source using a COMS for compliance purposes is responsible for demonstrating that he/she has complied with the performance evaluation requirements of §63.8(e), that the COMS has been properly maintained, operated, and data quality-assured, as specified in §63.8(c) and §63.8(d), and that the resulting data have not been altered in any way.

(v) Except as provided in paragraph (h)(7)(ii) of this section, the results of continuous monitoring by a COMS that indicate that the opacity at the time visual observations were made was not in excess of the emission standard are probative but not conclusive evidence of the actual opacity of an emission, provided that the affected source proves that, at the time of the alleged violation, the instrument used was properly maintained, as specified in §63.8(c), and met Performance Specification 1 in appendix B of part 60 of this chapter, and that the resulting data have not been altered in any way.

(8) *Finding of compliance.* The Administrator will make a finding concerning an affected source's compliance with an opacity or visible emission standard upon obtaining all the compliance information required by the relevant standard (including the written reports of the results of the performance tests required by §63.7, the results of Test Method 9 or another required opacity or visible emission test method, the observer certification required by paragraph (h)(6) of this section, and the continuous opacity monitoring system results, whichever is/are applicable) and any information available to the Administrator needed to determine whether proper operation and maintenance practices are being used.

(9) *Adjustment to an opacity emission standard.* (i) If the Administrator finds under paragraph (h)(8) of this section that an affected source is in compliance with all relevant standards for which initial performance tests were conducted under §63.7, but during the time such performance tests were conducted fails to meet any relevant opacity emission standard, the owner or operator of such source may petition the Administrator to make appropriate adjustment to the opacity emission standard for the affected source. Until the Administrator notifies the owner or operator of the appropriate adjustment, the relevant opacity emission standard remains applicable.

(ii) The Administrator may grant such a petition upon a demonstration by the owner or operator that—

(A) The affected source and its associated air pollution control equipment were operated and maintained in a manner to minimize the opacity of emissions during the performance tests;

(B) The performance tests were performed under the conditions established by the Administrator; and

(C) The affected source and its associated air pollution control equipment were incapable of being adjusted or operated to meet the relevant opacity emission standard.

(iii) The Administrator will establish an adjusted opacity emission standard for the affected source meeting the above requirements at a level at which the source will be able, as indicated by the performance and opacity tests, to meet the opacity emission standard at all times during which the source is meeting the mass or concentration emission standard. The Administrator will promulgate the new opacity emission standard in the FEDERAL REGISTER.

(iv) After the Administrator promulgates an adjusted opacity emission standard for an affected source, the owner or operator of such source shall be subject to the new opacity emission standard, and the new opacity emission standard shall apply to such source during any subsequent performance tests.

(i) *Extension of compliance with emission standards.* (1) Until an extension of compliance has been granted by the Administrator (or a State with an approved permit program) under this paragraph, the owner or operator of an affected source subject to the requirements of this section shall comply with all applicable requirements of this part.

(2) *Extension of compliance for early reductions and other reductions—(i) Early reductions.* Pursuant to section 112(i)(5) of the Act, if the owner or operator of an existing source demonstrates that the source has achieved a reduction in emissions of hazardous air pollutants in accordance with the provisions of subpart D of this part, the Administrator (or the State with an approved permit program) will grant the owner or operator an extension of compliance with specific requirements of this part, as specified in subpart D.

(ii) *Other reductions.* Pursuant to section 112(i)(6) of the Act, if the owner or operator of an existing source has installed best available control technology (BACT) (as defined in section 169(3) of the Act) or technology required to meet a lowest achievable emission rate (LAER) (as defined in section 171 of the Act) prior to the promulgation of an emission standard in this part applicable to such source and the same pollutant (or stream of pollutants) controlled pursuant to the

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BACT or LAER installation, the Administrator will grant the owner or operator an extension of compliance with such emission standard that will apply until the date 5 years after the date on which such installation was achieved, as determined by the Administrator.

(3) *Request for extension of compliance.* Paragraphs (i)(4) through (i)(7) of this section concern requests for an extension of compliance with a relevant standard under this part (except requests for an extension of compliance under paragraph (i)(2)(i) of this section will be handled through procedures specified in subpart D of this part).

(4)(i)(A) The owner or operator of an existing source who is unable to comply with a relevant standard established under this part pursuant to section 112(d) of the Act may request that the Administrator (or a State, when the State has an approved part 70 permit program and the source is required to obtain a part 70 permit under that program, or a State, when the State has been delegated the authority to implement and enforce the emission standard for that source) grant an extension allowing the source up to 1 additional year to comply with the standard, if such additional period is necessary for the installation of controls. An additional extension of up to 3 years may be added for mining waste operations, if the 1-year extension of compliance is insufficient to dry and cover mining waste in order to reduce emissions of any hazardous air pollutant. The owner or operator of an affected source who has requested an extension of compliance under this paragraph and who is otherwise required to obtain a title V permit shall apply for such permit or apply to have the source's title V permit revised to incorporate the conditions of the extension of compliance. The conditions of an extension of compliance granted under this paragraph will be incorporated into the affected source's title V permit according to the provisions of part 70 or Federal title V regulations in this chapter (42 U.S.C. 7661), whichever are applicable.

(B) Any request under this paragraph for an extension of compliance with a relevant standard must be submitted in writing to the appropriate authority no later than 120 days prior to the affected source's compliance date (as specified in paragraphs (b) and (c) of this section), except as provided for in paragraph (i)(4)(i)(C) of this section. Nonfrivolous requests submitted under this paragraph will stay the applicability of the rule as to the emission points in question until such time as the request is granted or denied. A denial will be effective as of the date of denial. Emission standards established under this part may specify alternative dates for the submittal of requests for an extension of compliance if alternatives are appropriate for the source categories affected by those standards.

(C) An owner or operator may submit a compliance extension request after the date specified in paragraph (i)(4)(i)(B) of this section provided the need for the compliance extension arose after that date, and before the otherwise applicable compliance date and the need arose due to circumstances beyond reasonable control of the owner or operator. This request must include, in addition to the information required in paragraph (i)(6)(i) of this section, a statement of the reasons additional time is needed and the date when the owner or operator first learned of the problems. Nonfrivolous requests submitted under this paragraph will stay the applicability of the rule as to the emission points in question until such time as the request is granted or denied. A denial will be effective as of the original compliance date.

(i) The owner or operator of an existing source unable to comply with a relevant standard established under this part pursuant to section 112(f) of the Act may request that the Administrator grant an extension allowing the source up to 2 years after the standard's effective date to comply with the standard. The Administrator may grant such an extension if he/she finds that such additional period is necessary for the installation of controls and that steps will be taken during the period of the extension to assure that the health of persons will be protected from imminent endangerment. Any request for an extension of compliance with a relevant standard under this paragraph must be submitted in writing to the Administrator not later than 90 calendar days after the effective date of the relevant standard.

(5) The owner or operator of an existing source that has installed BACT or technology required to meet LAER [as specified in paragraph (i)(2)(ii) of this section] prior to the promulgation of a relevant emission standard in this part may request that the Administrator grant an extension allowing the source 5 years from the date on which such installation was achieved, as determined by the Administrator, to comply with the standard. Any request for an extension of compliance with a relevant standard under this paragraph shall be submitted in writing to the Administrator not later than 120 days after the promulgation date of the standard. The Administrator may grant such an extension if he or she finds that the installation of BACT or technology to meet LAER controls the same pollutant (or stream of pollutants) that would be controlled at that source by the relevant emission standard.

(6)(i) The request for a compliance extension under paragraph (i)(4) of this section shall include the following information:

(A) A description of the controls to be installed to comply with the standard;

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(B) A compliance schedule, including the date by which each step toward compliance will be reached. At a minimum, the list of dates shall include:

(1) The date by which on-site construction, installation of emission control equipment, or a process change is planned to be initiated; and

(2) The date by which final compliance is to be achieved.

(3) The date by which on-site construction, installation of emission control equipment, or a process change is to be completed; and

(4) The date by which final compliance is to be achieved;

(C)-(D)

(ii) The request for a compliance extension under paragraph (i)(5) of this section shall include all information needed to demonstrate to the Administrator's satisfaction that the installation of BACT or technology to meet LAER controls the same pollutant (or stream of pollutants) that would be controlled at that source by the relevant emission standard.

(7) Advice on requesting an extension of compliance may be obtained from the Administrator (or the State with an approved permit program).

(8) *Approval of request for extension of compliance.* Paragraphs (i)(9) through (i)(14) of this section concern approval of an extension of compliance requested under paragraphs (i)(4) through (i)(6) of this section.

(9) Based on the information provided in any request made under paragraphs (i)(4) through (i)(6) of this section, or other information, the Administrator (or the State with an approved permit program) may grant an extension of compliance with an emission standard, as specified in paragraphs (i)(4) and (i)(5) of this section.

(10) The extension will be in writing and will—

(i) Identify each affected source covered by the extension;

(ii) Specify the termination date of the extension;

(iii) Specify the dates by which steps toward compliance are to be taken, if appropriate;

(iv) Specify other applicable requirements to which the compliance extension applies (e.g., performance tests); and

(v)(A) Under paragraph (i)(4), specify any additional conditions that the Administrator (or the State) deems necessary to assure installation of the necessary controls and protection of the health of persons during the extension period; or

(B) Under paragraph (i)(5), specify any additional conditions that the Administrator deems necessary to assure the proper operation and maintenance of the installed controls during the extension period.

(11) The owner or operator of an existing source that has been granted an extension of compliance under paragraph (i)(10) of this section may be required to submit to the Administrator (or the State with an approved permit program) progress reports indicating whether the steps toward compliance outlined in the compliance schedule have been reached. The contents of the progress reports and the dates by which they shall be submitted will be specified in the written extension of compliance granted under paragraph (i)(10) of this section.

(12)(i) The Administrator (or the State with an approved permit program) will notify the owner or operator in writing of approval or intention to deny approval of a request for an extension of compliance within 30 calendar days after receipt of sufficient information to evaluate a request submitted under paragraph (i)(4)(i) or (i)(5) of this section. The Administrator (or the State) will notify the owner or operator in writing of the status of his/her application, that is, whether the application contains sufficient information to make a determination, within 30 calendar days after receipt of the original application and within 30 calendar days after receipt of any supplementary information that is submitted. The 30-day approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete.

(ii) When notifying the owner or operator that his/her application is not complete, the Administrator will specify the information needed to complete the application and provide notice of opportunity for the applicant to present, in writing, within 30 calendar days after he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

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(iii) Before denying any request for an extension of compliance, the Administrator (or the State with an approved permit program) will notify the owner or operator in writing of the Administrator's (or the State's) intention to issue the denial, together with—

(A) Notice of the information and findings on which the intended denial is based; and

(B) Notice of opportunity for the owner or operator to present in writing, within 15 calendar days after he/she is notified of the intended denial, additional information or arguments to the Administrator (or the State) before further action on the request.

(iv) The Administrator's final determination to deny any request for an extension will be in writing and will set forth the specific grounds on which the denial is based. The final determination will be made within 30 calendar days after presentation of additional information or argument (if the application is complete), or within 30 calendar days after the final date specified for the presentation if no presentation is made.

(13)(i) The Administrator will notify the owner or operator in writing of approval or intention to deny approval of a request for an extension of compliance within 30 calendar days after receipt of sufficient information to evaluate a request submitted under paragraph (i)(4)(ii) of this section. The 30-day approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete. The Administrator (or the State) will notify the owner or operator in writing of the status of his/her application, that is, whether the application contains sufficient information to make a determination, within 15 calendar days after receipt of the original application and within 15 calendar days after receipt of any supplementary information that is submitted.

(ii) When notifying the owner or operator that his/her application is not complete, the Administrator will specify the information needed to complete the application and provide notice of opportunity for the applicant to present, in writing, within 15 calendar days after he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

(iii) Before denying any request for an extension of compliance, the Administrator will notify the owner or operator in writing of the Administrator's intention to issue the denial, together with—

(A) Notice of the information and findings on which the intended denial is based; and

(B) Notice of opportunity for the owner or operator to present in writing, within 15 calendar days after he/she is notified of the intended denial, additional information or arguments to the Administrator before further action on the request.

(v) A final determination to deny any request for an extension will be in writing and will set forth the specific grounds on which the denial is based. The final determination will be made within 30 calendar days after presentation of additional information or argument (if the application is complete), or within 30 calendar days after the final date specified for the presentation if no presentation is made.

(14) The Administrator (or the State with an approved permit program) may terminate an extension of compliance at an earlier date than specified if any specification under paragraph (i)(10)(ii) or (iv) of this section is not met. Upon a determination to terminate, the Administrator will notify, in writing, the owner or operator of the Administrator's determination to terminate, together with:

(i) Notice of the reason for termination; and

(ii) Notice of opportunity for the owner or operator to present in writing, within 15 calendar days after he/she is notified of the determination to terminate, additional information or arguments to the Administrator before further action on the termination.

(iii) A final determination to terminate an extension of compliance will be in writing and will set forth the specific grounds on which the termination is based. The final determination will be made within 30 calendar days after presentation of additional information or arguments, or within 30 calendar days after the final date specified for the presentation if no presentation is made.

(15) [Reserved]

(16) The granting of an extension under this section shall not abrogate the Administrator's authority under section 114 of the Act.

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(j) *Exemption from compliance with emission standards.* The President may exempt any stationary source from compliance with any relevant standard established pursuant to section 112 of the Act for a period of not more than 2 years if the President determines that the technology to implement such standard is not available and that it is in the national security interests of the United States to do so. An exemption under this paragraph may be extended for 1 or more additional periods, each period not to exceed 2 years.

[59 FR 12430, Mar. 16, 1994, as amended at 67 FR 16599, Apr. 5, 2002; 68 FR 32600, May 30, 2003; 71 FR 20454, Apr. 20, 2006]

§63.7 Performance testing requirements.

(a) *Applicability and performance test dates.* (1) The applicability of this section is set out in §63.1(a)(4).

(2) Except as provided in paragraph (a)(4) of this section, if required to do performance testing by a relevant standard, and unless a waiver of performance testing is obtained under this section or the conditions of paragraph (c)(3)(i)(B) of this section apply, the owner or operator of the affected source must perform such tests within 180 days of the compliance date for such source.

(i)-(viii) [Reserved]

(ix) Except as provided in paragraph (a)(4) of this section, when an emission standard promulgated under this part is more stringent than the standard proposed (see §63.6(b)(3)), the owner or operator of a new or reconstructed source subject to that standard for which construction or reconstruction is commenced between the proposal and promulgation dates of the standard shall comply with performance testing requirements within 180 days after the standard's effective date, or within 180 days after startup of the source, whichever is later. If the promulgated standard is more stringent than the proposed standard, the owner or operator may choose to demonstrate compliance with either the proposed or the promulgated standard. If the owner or operator chooses to comply with the proposed standard initially, the owner or operator shall conduct a second performance test within 3 years and 180 days after the effective date of the standard, or after startup of the source, whichever is later, to demonstrate compliance with the promulgated standard.

(3) The Administrator may require an owner or operator to conduct performance tests at the affected source at any other time when the action is authorized by section 114 of the Act.

(4) If a force majeure is about to occur, occurs, or has occurred for which the affected owner or operator intends to assert a claim of force majeure:

(i) The owner or operator shall notify the Administrator, in writing as soon as practicable following the date the owner or operator first knew, or through due diligence should have known that the event may cause or caused a delay in testing beyond the regulatory deadline specified in paragraph (a)(2) or (a)(3) of this section, or elsewhere in this part, but the notification must occur before the performance test deadline unless the initial force majeure or a subsequent force majeure event delays the notice, and in such cases, the notification shall occur as soon as practicable.

(ii) The owner or operator shall provide to the Administrator a written description of the force majeure event and a rationale for attributing the delay in testing beyond the regulatory deadline to the force majeure; describe the measures taken or to be taken to minimize the delay; and identify a date by which the owner or operator proposes to conduct the performance test. The performance test shall be conducted as soon as practicable after the force majeure occurs.

(iii) The decision as to whether or not to grant an extension to the performance test deadline is solely within the discretion of the Administrator. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an extension as soon as practicable.

(iv) Until an extension of the performance test deadline has been approved by the Administrator under paragraphs (a)(4)(i), (a)(4)(ii), and (a)(4)(iii) of this section, the owner or operator of the affected facility remains strictly subject to the requirements of this part.

(b) *Notification of performance test.* (1) The owner or operator of an affected source must notify the Administrator in writing of his or her intention to conduct a performance test at least 60 calendar days before the performance test is initially scheduled to begin to allow the Administrator, upon request, to review and approve the site-specific test plan required under paragraph (c) of this section and to have an observer present during the test.

(2) In the event the owner or operator is unable to conduct the performance test on the date specified in the notification requirement specified in paragraph (b)(1) of this section due to unforeseeable circumstances beyond his or her control, the

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owner or operator must notify the Administrator as soon as practicable and without delay prior to the scheduled performance test date and specify the date when the performance test is rescheduled. This notification of delay in conducting the performance test shall not relieve the owner or operator of legal responsibility for compliance with any other applicable provisions of this part or with any other applicable Federal, State, or local requirement, nor will it prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(c) *Quality assurance program.* (1) The results of the quality assurance program required in this paragraph will be considered by the Administrator when he/she determines the validity of a performance test.

(2)(i) *Submission of site-specific test plan.* Before conducting a required performance test, the owner or operator of an affected source shall develop and, if requested by the Administrator, shall submit a site-specific test plan to the Administrator for approval. The test plan shall include a test program summary, the test schedule, data quality objectives, and both an internal and external quality assurance (QA) program. Data quality objectives are the pretest expectations of precision, accuracy, and completeness of data.

(ii) The internal QA program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of test data precision; an example of internal QA is the sampling and analysis of replicate samples.

(iii) The performance testing shall include a test method performance audit (PA) during the performance test. The PAs consist of blind audit samples supplied by an accredited audit sample provider and analyzed during the performance test in order to provide a measure of test data bias. Gaseous audit samples are designed to audit the performance of the sampling system as well as the analytical system and must be collected by the sampling system during the compliance test just as the compliance samples are collected. If a liquid or solid audit sample is designed to audit the sampling system, it must also be collected by the sampling system during the compliance test. If multiple sampling systems or sampling trains are used during the compliance test for any of the test methods, the tester is only required to use one of the sampling systems per method to collect the audit sample. The audit sample must be analyzed by the same analyst using the same analytical reagents and analytical system and at the same time as the compliance samples. Retests are required when there is a failure to produce acceptable results for an audit sample. However, if the audit results do not affect the compliance or noncompliance status of the affected facility, the compliance authority may waive the reanalysis requirement, further audits, or retests and accept the results of the compliance test. Acceptance of the test results shall constitute a waiver of the reanalysis requirement, further audits, or retests. The compliance authority may also use the audit sample failure and the compliance test results as evidence to determine the compliance or noncompliance status of the affected facility. A blind audit sample is a sample whose value is known only to the sample provider and is not revealed to the tested facility until after they report the measured value of the audit sample. For pollutants that exist in the gas phase at ambient temperature, the audit sample shall consist of an appropriate concentration of the pollutant in air or nitrogen that can be introduced into the sampling system of the test method at or near the same entry point as a sample from the emission source. If no gas phase audit samples are available, an acceptable alternative is a sample of the pollutant in the same matrix that would be produced when the sample is recovered from the sampling system as required by the test method. For samples that exist only in a liquid or solid form at ambient temperature, the audit sample shall consist of an appropriate concentration of the pollutant in the same matrix that would be produced when the sample is recovered from the sampling system as required by the test method. An accredited audit sample provider (AASP) is an organization that has been accredited to prepare audit samples by an independent, third party accrediting body.

(A) The source owner, operator, or representative of the tested facility shall obtain an audit sample, if commercially available, from an AASP for each test method used for regulatory compliance purposes. No audit samples are required for the following test methods: Methods 3C of Appendix A-3 of Part 60, Methods 6C, 7E, 9, and 10 of Appendix A-4 of Part 60, Method 18 of Appendix A-6 of Part 60, Methods 20, 22, and 25A of Appendix A-7 of Part 60, and Methods 303, 318, 320, and 321 of Appendix A of Part 63. If multiple sources at a single facility are tested during a compliance test event, only one audit sample is required for each method used during a compliance test. The compliance authority responsible for the compliance test may waive the requirement to include an audit sample if they believe that an audit sample is not necessary. "Commercially available" means that two or more independent AASPs have blind audit samples available for purchase. If the source owner, operator, or representative cannot find an audit sample for a specific method, the owner, operator, or representative shall consult the EPA Web site at the following URL, <http://www.epa.gov/ttn/naac>, to confirm whether there is a source that can supply an audit sample for that method. If the EPA Web site does not list an available audit sample at least 60 days prior to the beginning of the compliance test, the source owner, operator, or representative shall not be required to include an audit sample as part of the quality assurance program for the compliance test. When ordering an audit sample, the source owner, operator, or representative shall give the sample provider an estimate for the concentration of each pollutant that is omitted by the source or the estimated concentration of each pollutant based on the permitted level and the name,

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address, and phone number of the compliance authority. The source owner, operator, or representative shall report the results for the audit sample along with a summary of the emission test results for the audited pollutant to the compliance authority and shall report the results of the audit sample to the AASP. The source owner, operator, or representative shall make both reports at the same time and in the same manner or shall report to the compliance authority first and report to the AASP. If the method being audited is a method that allows the samples to be analyzed in the field and the tester plans to analyze the samples in the field, the tester may analyze the audit samples prior to collecting the emission samples provided a representative of the compliance authority is present at the testing site. The tester may request and the compliance authority may grant a waiver to the requirement that a representative of the compliance authority must be present at the testing site during the field analysis of an audit sample. The source owner, operator, or representative may report the results of the audit sample to the compliance authority and then report the results of the audit sample to the AASP prior to collecting any emission samples. The test protocol and final test report shall document whether an audit sample was ordered and utilized and the pass/fail results as applicable.

(B) An AASP shall have and shall prepare, analyze, and report the true value of audit samples in accordance with a written technical criteria document that describes how audit samples will be prepared and distributed in a manner that will ensure the integrity of the audit sample program. An acceptable technical criteria document shall contain standard operating procedures for all of the following operations:

- (1) Preparing the sample;
- (2) Confirming the true concentration of the sample;
- (3) Defining the acceptance limits for the results from a well-qualified tester. This procedure must use well established statistical methods to analyze historical results from well qualified testers. The acceptance limits shall be set so that there is 95 percent confidence that 90 percent of well qualified labs will produce future results that are within the acceptance limit range;
- (4) Providing the opportunity for the compliance authority to comment on the selected concentration level for an audit sample;
- (5) Distributing the sample to the user in a manner that guarantees that the true value of the sample is unknown to the user;
- (6) Recording the measured concentration reported by the user and determining if the measured value is within acceptable limits;
- (7) Reporting the results from each audit sample in a timely manner to the compliance authority and to the source owner, operator, or representative by the AASP. The AASP shall make both reports at the same time and in the same manner or shall report to the compliance authority first and then report to the source owner, operator, or representative. The results shall include the name of the facility tested, the date on which the compliance test was conducted, the name of the company performing the sample collection, the name of the company that analyzed the compliance samples including the audit sample, the measured result for the audit sample, and whether the testing company passed or failed the audit. The AASP shall report the true value of the audit sample to the compliance authority. The AASP may report the true value to the source owner, operator, or representative if the AASP's operating plan ensures that no laboratory will receive the same audit sample twice.
- (8) Evaluating the acceptance limits of samples at least once every two years to determine in consultation with the voluntary consensus standard body if they should be changed.
- (9) Maintaining a database, accessible to the compliance authorities, of results from the audit that shall include the name of the facility tested, the date on which the compliance test was conducted, the name of the company performing the sample collection, the name of the company that analyzed the compliance samples including the audit sample, the measured result for the audit sample, the true value of the audit sample, the acceptance range for the measured value, and whether the testing company passed or failed the audit.

(C) The accrediting body shall have a written technical criteria document that describes how it will ensure that the AASP is operating in accordance with the AASP technical criteria document that describes how audit samples are to be prepared and distributed. This document shall contain standard operating procedures for all of the following operations:

- (1) Checking audit samples to confirm their true value as reported by the AASP.
- (2) Performing technical systems audits of the AASP's facilities and operating procedures at least once every two years.

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(3) Providing standards for use by the voluntary consensus standard body to approve the accrediting body that will accredit the audit sample providers.

(D) The technical criteria documents for the accredited sample providers and the accrediting body shall be developed through a public process guided by a voluntary consensus standards body (VCSB). The VCSB shall operate in accordance with the procedures and requirements in the Office of Management and Budget *Circular A-119*. A copy of Circular A-119 is available upon request by writing the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW., Washington, DC 20503, by calling (202) 395-6880 or downloading online at http://standards.gov/standards_gov/a119.cfm. The VCSB shall approve all accrediting bodies. The Administrator will review all technical criteria documents. If the technical criteria documents do not meet the minimum technical requirements in paragraphs (e)(2)(ii)(B) through (C) of this section, the technical criteria documents are not acceptable and the proposed audit sample program is not capable of producing audit samples of sufficient quality to be used in a compliance test. All acceptable technical criteria documents shall be posted on the EPA Web site at the following URL, <http://www.epa.gov/tn/emc>.

(iv) The owner or operator of an affected source shall submit the site-specific test plan to the Administrator upon the Administrator's request at least 60 calendar days before the performance test is scheduled to take place, that is, simultaneously with the notification of intention to conduct a performance test required under paragraph (b) of this section, or on a mutually agreed upon date.

(v) The Administrator may request additional relevant information after the submittal of a site-specific test plan.

(3) *Approval of site-specific test plan.* (i) The Administrator will notify the owner or operator of approval or intention to deny approval of the site-specific test plan (if review of the site-specific test plan is requested) within 30 calendar days after receipt of the original plan and within 30 calendar days after receipt of any supplementary information that is submitted under paragraph (c)(3)(i)(B) of this section. Before disapproving any site-specific test plan, the Administrator will notify the applicant of the Administrator's intention to disapprove the plan together with—

(A) Notice of the information and findings on which the intended disapproval is based; and

(B) Notice of opportunity for the owner or operator to present, within 30 calendar days after he/she is notified of the intended disapproval, additional information to the Administrator before final action on the plan.

(ii) In the event that the Administrator fails to approve or disapprove the site-specific test plan within the time period specified in paragraph (c)(3)(i) of this section, the following conditions shall apply:

(A) If the owner or operator intends to demonstrate compliance using the test method(s) specified in the relevant standard or with only minor changes to those tests methods (see paragraph (e)(2)(i) of this section), the owner or operator must conduct the performance test within the time specified in this section using the specified method(s);

(B) If the owner or operator intends to demonstrate compliance by using an alternative to any test method specified in the relevant standard, the owner or operator is authorized to conduct the performance test using an alternative test method after the Administrator approves the use of the alternative method when the Administrator approves the site-specific test plan (if review of the site-specific test plan is requested) or after the alternative method is approved (see paragraph (f) of this section). However, the owner or operator is authorized to conduct the performance test using an alternative method in the absence of notification of approval 45 days after submission of the site-specific test plan or request to use an alternative method. The owner or operator is authorized to conduct the performance test within 60 calendar days after he/she is authorized to demonstrate compliance using an alternative test method. Notwithstanding the requirements in the preceding three sentences, the owner or operator may proceed to conduct the performance test as required in this section (without the Administrator's prior approval of the site-specific test plan) if he/she subsequently chooses to use the specified testing and monitoring methods instead of an alternative.

(iii) Neither the submission of a site-specific test plan for approval, nor the Administrator's approval or disapproval of a plan, nor the Administrator's failure to approve or disapprove a plan in a timely manner shall—

(A) Relieve an owner or operator of legal responsibility for compliance with any applicable provisions of this part or with any other applicable Federal, State, or local requirement; or

(B) Prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

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(d) *Performance testing facilities.* If required to do performance testing, the owner or operator of each new source and, at the request of the Administrator, the owner or operator of each existing source, shall provide performance testing facilities as follows:

(1) Sampling ports adequate for test methods applicable to such source. This includes:

(i) Constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures; and

(ii) Providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures;

(2) Safe sampling platform(s);

(3) Safe access to sampling platform(s);

(4) Utilities for sampling and testing equipment; and

(5) Any other facilities that the Administrator deems necessary for safe and adequate testing of a source.

(e) *Conduct of performance tests.* (1) Performance tests shall be conducted under such conditions as the Administrator specifies to the owner or operator based on representative performance (i.e., performance based on normal operating conditions) of the affected source. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test, nor shall emissions in excess of the level of the relevant standard during periods of startup, shutdown, and malfunction be considered a violation of the relevant standard unless otherwise specified in the relevant standard or a determination of noncompliance is made under §63.6(e). Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

(2) Performance tests shall be conducted and data shall be reduced in accordance with the test methods and procedures set forth in this section, in each relevant standard, and, if required, in applicable appendices of parts 51, 60, 61, and 63 of this chapter unless the Administrator—

(i) Specifies or approves, in specific cases, the use of a test method with minor changes in methodology (see definition in §63.90(a)). Such changes may be approved in conjunction with approval of the site-specific test plan (see paragraph (c) of this section); or

(ii) Approves the use of an intermediate or major change or alternative to a test method (see definitions in §63.90(a)), the results of which the Administrator has determined to be adequate for indicating whether a specific affected source is in compliance; or

(iii) Approves shorter sampling times or smaller sample volumes when necessitated by process variables or other factors; or

(iv) Waives the requirement for performance tests because the owner or operator of an affected source has demonstrated by other means to the Administrator's satisfaction that the affected source is in compliance with the relevant standard.

(3) Unless otherwise specified in a relevant standard or test method, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the relevant standard. For the purpose of determining compliance with a relevant standard, the arithmetic mean of the results of the three runs shall apply. Upon receiving approval from the Administrator, results of a test run may be replaced with results of an additional test run in the event that—

(i) A sample is accidentally lost after the testing team leaves the site; or

(ii) Conditions occur in which one of the three runs must be discontinued because of forced shutdown; or

(iii) Extreme meteorological conditions occur; or

(iv) Other circumstances occur that are beyond the owner or operator's control.

(4) Nothing in paragraphs (e)(1) through (e)(3) of this section shall be construed to abrogate the Administrator's authority to require testing under section 114 of the Act.

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(f) *Use of an alternative test method—(1) General.* Until authorized to use an intermediate or major change or alternative to a test method, the owner or operator of an affected source remains subject to the requirements of this section and the relevant standard.

(2) The owner or operator of an affected source required to do performance testing by a relevant standard may use an alternative test method from that specified in the standard provided that the owner or operator—

(i) Notifies the Administrator of his or her intention to use an alternative test method at least 60 days before the performance test is scheduled to begin;

(ii) Uses Method 301 in appendix A of this part to validate the alternative test method. This may include the use of specific procedures of Method 301 if use of such procedures are sufficient to validate the alternative test method; and

(iii) Submits the results of the Method 301 validation process along with notification of intention and the justification for not using the specified test method. The owner or operator may submit the information required in this paragraph well in advance of the deadline specified in paragraph (f)(2)(i) of this section to ensure a timely review by the Administrator in order to meet the performance test date specified in this section or the relevant standard.

(3) The Administrator will determine whether the owner or operator's validation of the proposed alternative test method is adequate and issue an approval or disapproval of the alternative test method. If the owner or operator intends to demonstrate compliance by using an alternative to any test method specified in the relevant standard, the owner or operator is authorized to conduct the performance test using an alternative test method after the Administrator approves the use of the alternative method. However, the owner or operator is authorized to conduct the performance test using an alternative method in the absence of notification of approval/disapproval 45 days after submission of the request to use an alternative method and the request satisfies the requirements in paragraph (f)(2) of this section. The owner or operator is authorized to conduct the performance test within 60 calendar days after he/she is authorized to demonstrate compliance using an alternative test method. Notwithstanding the requirements in the preceding three sentences, the owner or operator may proceed to conduct the performance test as required in this section (without the Administrator's prior approval of the site-specific test plan) if he/she subsequently chooses to use the specified testing and monitoring methods instead of an alternative.

(4) If the Administrator finds reasonable grounds to dispute the results obtained by an alternative test method for the purposes of demonstrating compliance with a relevant standard, the Administrator may require the use of a test method specified in a relevant standard.

(5) If the owner or operator uses an alternative test method for an affected source during a required performance test, the owner or operator of such source shall continue to use the alternative test method for subsequent performance tests at that affected source until he or she receives approval from the Administrator to use another test method as allowed under §63.7(f).

(6) Neither the validation and approval process nor the failure to validate an alternative test method shall abrogate the owner or operator's responsibility to comply with the requirements of this part.

(g) *Data analysis, recordkeeping, and reporting.* (1) Unless otherwise specified in a relevant standard or test method, or as otherwise approved by the Administrator in writing, results of a performance test shall include the analysis of samples, determination of emissions, and raw data. A performance test is "completed" when field sample collection is terminated. The owner or operator of an affected source shall report the results of the performance test to the Administrator before the close of business on the 60th day following the completion of the performance test, unless specified otherwise in a relevant standard or as approved otherwise in writing by the Administrator (see §63.9(i)). The results of the performance test shall be submitted as part of the notification of compliance status required under §63.9(h). Before a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall send the results of the performance test to the Administrator. After a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall send the results of the performance test to the appropriate permitting authority.

(2) [Reserved]

(3) For a minimum of 5 years after a performance test is conducted, the owner or operator shall retain and make available, upon request, for inspection by the Administrator the records or results of such performance test and other data needed to determine emissions from an affected source.

(h) *Waiver of performance tests.* (1) Until a waiver of a performance testing requirement has been granted by the Administrator under this paragraph, the owner or operator of an affected source remains subject to the requirements of this section.

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(2) Individual performance tests may be waived upon written application to the Administrator if, in the Administrator's judgment, the source is meeting the relevant standard(s) on a continuous basis, or the source is being operated under an extension of compliance, or the owner or operator has requested an extension of compliance and the Administrator is still considering that request.

(3) *Request to waive a performance test.* (i) If a request is made for an extension of compliance under §63.6(i), the application for a waiver of an initial performance test shall accompany the information required for the request for an extension of compliance. If no extension of compliance is requested or if the owner or operator has requested an extension of compliance and the Administrator is still considering that request, the application for a waiver of an initial performance test shall be submitted at least 60 days before the performance test if the site-specific test plan under paragraph (c) of this section is not submitted.

(ii) If an application for a waiver of a subsequent performance test is made, the application may accompany any required compliance progress report, compliance status report, or excess emissions and continuous monitoring system performance report [such as those required under §63.6(i), §63.9(h), and §63.10(e) or specified in a relevant standard or in the source's title V permit], but it shall be submitted at least 60 days before the performance test if the site-specific test plan required under paragraph (c) of this section is not submitted.

(iii) Any application for a waiver of a performance test shall include information justifying the owner or operator's request for a waiver, such as the technical or economic infeasibility, or the impracticality, of the affected source performing the required test.

(4) *Approval of request to waive performance test.* The Administrator will approve or deny a request for a waiver of a performance test made under paragraph (h)(3) of this section when he/she—

(i) Approves or denies an extension of compliance under §63.6(i)(8); or

(ii) Approves or disapproves a site-specific test plan under §63.7(c)(3); or

(iii) Makes a determination of compliance following the submission of a required compliance status report or excess emissions and continuous monitoring systems performance report; or

(iv) Makes a determination of suitable progress towards compliance following the submission of a compliance progress report, whichever is applicable.

(5) Approval of any waiver granted under this section shall not abrogate the Administrator's authority under the Act or in any way prohibit the Administrator from later cancelling the waiver. The cancellation will be made only after notice is given to the owner or operator of the affected source.

[59 FR 12430, Mar. 16, 1994, as amended at 65 FR 62215, Oct. 17, 2000; 67 FR 16602, Apr. 5, 2002; 72 FR 27443, May 16, 2007; 75 FR 55655, Sept. 13, 2010]

§63.8 Monitoring requirements.

(a) *Applicability.* (1) The applicability of this section is set out in §63.1(a)(4).

(2) For the purposes of this part, all CMS required under relevant standards shall be subject to the provisions of this section upon promulgation of performance specifications for CMS as specified in the relevant standard or otherwise by the Administrator.

(3) [Reserved]

(4) Additional monitoring requirements for control devices used to comply with provisions in relevant standards of this part are specified in §63.11.

(b) *Conduct of monitoring.* (1) Monitoring shall be conducted as set forth in this section and the relevant standard(s) unless the Administrator—

(i) Specifies or approves the use of minor changes in methodology for the specified monitoring requirements and procedures (see §63.90(a) for definition); or

(ii) Approves the use of an intermediate or major change or alternative to any monitoring requirements or procedures (see §63.90(a) for definition).

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(iii) Owners or operators with flares subject to §63.11(b) are not subject to the requirements of this section unless otherwise specified in the relevant standard.

(2)(i) When the emissions from two or more affected sources are combined before being released to the atmosphere, the owner or operator may install an applicable CMS for each emission stream or for the combined emissions streams, provided the monitoring is sufficient to demonstrate compliance with the relevant standard.

(ii) If the relevant standard is a mass emission standard and the emissions from one affected source are released to the atmosphere through more than one point, the owner or operator must install an applicable CMS at each emission point unless the installation of fewer systems is—

(A) Approved by the Administrator; or

(B) Provided for in a relevant standard (e.g., instead of requiring that a CMS be installed at each emission point before the effluents from those points are channeled to a common control device, the standard specifies that only one CMS is required to be installed at the vent of the control device).

(3) When more than one CMS is used to measure the emissions from one affected source (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required for each CMS. However, when one CMS is used as a backup to another CMS, the owner or operator shall report the results from the CMS used to meet the monitoring requirements of this part. If both such CMS are used during a particular reporting period to meet the monitoring requirements of this part, then the owner or operator shall report the results from each CMS for the relevant compliance period.

(c) *Operation and maintenance of continuous monitoring systems.* (1) The owner or operator of an affected source shall maintain and operate each CMS as specified in this section, or in a relevant standard, and in a manner consistent with good air pollution control practices. (i) The owner or operator of an affected source must maintain and operate each CMS as specified in §63.6(e)(1).

(ii) The owner or operator must keep the necessary parts for routine repairs of the affected CMS equipment readily available.

(iii) The owner or operator of an affected source must develop a written startup, shutdown, and malfunction plan for CMS as specified in §63.6(e)(3).

(2)(i) All CMS must be installed such that representative measures of emissions or process parameters from the affected source are obtained. In addition, CEMS must be located according to procedures contained in the applicable performance specification(s).

(ii) Unless the individual subpart states otherwise, the owner or operator must ensure the read out (that portion of the CMS that provides a visual display or record), or other indication of operation, from any CMS required for compliance with the emission standard is readily accessible on site for operational control or inspection by the operator of the equipment.

(3) All CMS shall be installed, operational, and the data verified as specified in the relevant standard either prior to or in conjunction with conducting performance tests under §63.7. Verification of operational status shall, at a minimum, include completion of the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system.

(4) Except for system breakdowns, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high-level calibration drift adjustments, all CMS, including COMS and CEMS, shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:

(i) All COMS shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(ii) All CEMS for measuring emissions other than opacity shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

(5) Unless otherwise approved by the Administrator, minimum procedures for COMS shall include a method for producing a simulated zero opacity condition and an upscale (high-level) opacity condition using a certified neutral density filter or other related technique to produce a known obscuration of the light beam. Such procedures shall provide a system check of all the analyzer's internal optical surfaces and all electronic circuitry, including the lamp and photodetector assembly normally used in the measurement of opacity.

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(6) The owner or operator of a CMS that is not a CPMS, which is installed in accordance with the provisions of this part and the applicable CMS performance specification(s), must check the zero (low-level) and high-level calibration drifts at least once daily in accordance with the written procedure specified in the performance evaluation plan developed under paragraphs (e)(3)(i) and (ii) of this section. The zero (low-level) and high-level calibration drifts must be adjusted, at a minimum, whenever the 24-hour zero (low-level) drift exceeds two times the limits of the applicable performance specification(s) specified in the relevant standard. The system shall allow the amount of excess zero (low-level) and high-level drift measured at the 24-hour interval checks to be recorded and quantified whenever specified. For COMS, all optical and instrumental surfaces exposed to the effluent gases must be cleaned prior to performing the zero (low-level) and high-level drift adjustments; the optical surfaces and instrumental surfaces must be cleaned when the cumulative automatic zero compensation, if applicable, exceeds 4 percent opacity. The CPMS must be calibrated prior to use for the purposes of complying with this section. The CPMS must be checked daily for indication that the system is responding. If the CPMS system includes an internal system check, results must be recorded and checked daily for proper operation.

(7)(i) A CMS is out of control if—

(A) The zero (low-level), mid-level (if applicable), or high-level calibration drift (CD) exceeds two times the applicable CD specification in the applicable performance specification or in the relevant standard; or

(B) The CMS fails a performance test audit (e.g., cylinder gas audit), relative accuracy audit, relative accuracy test audit, or linearity test audit; or

(C) The COMS CD exceeds two times the limit in the applicable performance specification in the relevant standard.

(ii) When the CMS is out of control, the owner or operator of the affected source shall take the necessary corrective action and shall repeat all necessary tests which indicate that the system is out of control. The owner or operator shall take corrective action and conduct retesting until the performance requirements are below the applicable limits. The beginning of the out-of-control period is the hour the owner or operator conducts a performance check (e.g., calibration drift) that indicates an exceedance of the performance requirements established under this part. The end of the out-of-control period is the hour following the completion of corrective action and successful demonstration that the system is within the allowable limits. During the period the CMS is out of control, recorded data shall not be used in data averages and calculations, or to meet any data availability requirement established under this part.

(8) The owner or operator of a CMS that is out of control as defined in paragraph (c)(7) of this section shall submit all information concerning out-of-control periods, including start and end dates and hours and descriptions of corrective actions taken, in the excess emissions and continuous monitoring system performance report required in §63.10(e)(3).

(d) *Quality control program.* (1) The results of the quality control program required in this paragraph will be considered by the Administrator when he/she determines the validity of monitoring data.

(2) The owner or operator of an affected source that is required to use a CMS and is subject to the monitoring requirements of this section and a relevant standard shall develop and implement a CMS quality control program. As part of the quality control program, the owner or operator shall develop and submit to the Administrator for approval upon request a site-specific performance evaluation test plan for the CMS performance evaluation required in paragraph (e)(3)(i) of this section, according to the procedures specified in paragraph (e). In addition, each quality control program shall include, at a minimum, a written protocol that describes procedures for each of the following operations:

(i) Initial and any subsequent calibration of the CMS;

(ii) Determination and adjustment of the calibration drift of the CMS;

(iii) Preventive maintenance of the CMS, including spare parts inventory;

(iv) Data recording, calculations, and reporting;

(v) Accuracy audit procedures, including sampling and analysis methods; and

(vi) Program of corrective action for a malfunctioning CMS.

(3) The owner or operator shall keep these written procedures on record for the life of the affected source or until the affected source is no longer subject to the provisions of this part, to be made available for inspection, upon request, by the Administrator. If the performance evaluation plan is revised, the owner or operator shall keep previous (i.e., superseded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by the

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Administrator, for a period of 5 years after each revision to the plan. Where relevant, e.g., program of corrective action for a malfunctioning CMS, these written procedures may be incorporated as part of the affected source's startup, shutdown, and malfunction plan to avoid duplication of planning and recordkeeping efforts.

(c) *Performance evaluation of continuous monitoring systems*—(1) *General*. When required by a relevant standard, and at any other time the Administrator may require under section 114 of the Act, the owner or operator of an affected source being monitored shall conduct a performance evaluation of the CMS. Such performance evaluation shall be conducted according to the applicable specifications and procedures described in this section or in the relevant standard.

(2) *Notification of performance evaluation*. The owner or operator shall notify the Administrator in writing of the date of the performance evaluation simultaneously with the notification of the performance test date required under §63.7(b) or at least 60 days prior to the date the performance evaluation is scheduled to begin if no performance test is required.

(3)(i) *Submission of site-specific performance evaluation test plan*. Before conducting a required CMS performance evaluation, the owner or operator of an affected source shall develop and submit a site-specific performance evaluation test plan to the Administrator for approval upon request. The performance evaluation test plan shall include the evaluation program objectives, an evaluation program summary, the performance evaluation schedule, data quality objectives, and both an internal and external QA program. Data quality objectives are the pre-evaluation expectations of precision, accuracy, and completeness of data.

(ii) The internal QA program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of CMS performance. The external QA program shall include, at a minimum, systems audits that include the opportunity for on-site evaluation by the Administrator of instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities.

(iii) The owner or operator of an affected source shall submit the site-specific performance evaluation test plan to the Administrator (if requested) at least 60 days before the performance test or performance evaluation is scheduled to begin, or on a mutually agreed upon date, and review and approval of the performance evaluation test plan by the Administrator will occur with the review and approval of the site-specific test plan (if review of the site-specific test plan is requested).

(iv) The Administrator may request additional relevant information after the submittal of a site-specific performance evaluation test plan.

(v) In the event that the Administrator fails to approve or disapprove the site-specific performance evaluation test plan within the time period specified in §63.7(c)(3), the following conditions shall apply:

(A) If the owner or operator intends to demonstrate compliance using the monitoring method(s) specified in the relevant standard, the owner or operator shall conduct the performance evaluation within the time specified in this subpart using the specified method(s);

(B) If the owner or operator intends to demonstrate compliance by using an alternative to a monitoring method specified in the relevant standard, the owner or operator shall refrain from conducting the performance evaluation until the Administrator approves the use of the alternative method. If the Administrator does not approve the use of the alternative method within 30 days before the performance evaluation is scheduled to begin, the performance evaluation deadline specified in paragraph (c)(4) of this section may be extended such that the owner or operator shall conduct the performance evaluation within 60 calendar days after the Administrator approves the use of the alternative method. Notwithstanding the requirements in the preceding two sentences, the owner or operator may proceed to conduct the performance evaluation as required in this section (without the Administrator's prior approval of the site-specific performance evaluation test plan) if he/she subsequently chooses to use the specified monitoring method(s) instead of an alternative.

(vi) Neither the submission of a site-specific performance evaluation test plan for approval, nor the Administrator's approval or disapproval of a plan, nor the Administrator's failure to approve or disapprove a plan in a timely manner shall—

(A) Relieve an owner or operator of legal responsibility for compliance with any applicable provisions of this part or with any other applicable Federal, State, or local requirement; or

(B) Prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(4) *Conduct of performance evaluation and performance evaluation dates*. The owner or operator of an affected source shall conduct a performance evaluation of a required CMS during any performance test required under §63.7 in accordance with the applicable performance specification as specified in the relevant standard. Notwithstanding the requirement in the previous sentence, if the owner or operator of an affected source elects to submit COMS data for compliance with a relevant

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opacity emission standard as provided under §63.6(h)(7), he/she shall conduct a performance evaluation of the COMS as specified in the relevant standard, before the performance test required under §63.7 is conducted in time to submit the results of the performance evaluation as specified in paragraph (c)(5)(ii) of this section. If a performance test is not required, or the requirement for a performance test has been waived under §63.7(h), the owner or operator of an affected source shall conduct the performance evaluation not later than 180 days after the appropriate compliance date for the affected source, as specified in §63.7(a), or as otherwise specified in the relevant standard.

(5) *Reporting performance evaluation results*. (i) The owner or operator shall furnish the Administrator a copy of a written report of the results of the performance evaluation simultaneously with the results of the performance test required under §63.7 or within 60 days of completion of the performance evaluation if no test is required, unless otherwise specified in a relevant standard. The Administrator may request that the owner or operator submit the raw data from a performance evaluation in the report of the performance evaluation results.

(ii) The owner or operator of an affected source using a COMS to determine opacity compliance during any performance test required under §63.7 and described in §63.6(d)(6) shall furnish the Administrator two or, upon request, three copies of a written report of the results of the COMS performance evaluation under this paragraph. The copies shall be provided at least 15 calendar days before the performance test required under §63.7 is conducted.

(f) *Use of an alternative monitoring method*—(1) *General*. Until permission to use an alternative monitoring procedure (minor, intermediate, or major changes; see definition in §63.90(a)) has been granted by the Administrator under this paragraph (f)(1), the owner or operator of an affected source remains subject to the requirements of this section and the relevant standard.

(2) After receipt and consideration of written application, the Administrator may approve alternatives to any monitoring methods or procedures of this part including, but not limited to, the following:

(i) Alternative monitoring requirements when installation of a CMS specified by a relevant standard would not provide accurate measurements due to liquid water or other interferences caused by substances within the effluent gases;

(ii) Alternative monitoring requirements when the affected source is infrequently operated;

(iii) Alternative monitoring requirements to accommodate CEMS that require additional measurements to correct for stack moisture conditions;

(iv) Alternative locations for installing CMS when the owner or operator can demonstrate that installation at alternate locations will enable accurate and representative measurements;

(v) Alternate methods for converting pollutant concentration measurements to units of the relevant standard;

(vi) Alternate procedures for performing daily checks of zero (low-level) and high-level drift that do not involve use of high-level gases or test cells;

(vii) Alternatives to the American Society for Testing and Materials (ASTM) test methods or sampling procedures specified by any relevant standard;

(viii) Alternative CMS that do not meet the design or performance requirements in this part, but adequately demonstrate a definite and consistent relationship between their measurements and the measurements of opacity by a system complying with the requirements as specified in the relevant standard. The Administrator may require that such demonstration be performed for each affected source; or

(ix) Alternative monitoring requirements when the effluent from a single affected source or the combined effluent from two or more affected sources is released to the atmosphere through more than one point.

(3) If the Administrator finds reasonable grounds to dispute the results obtained by an alternative monitoring method, requirement, or procedure, the Administrator may require the use of a method, requirement, or procedure specified in this section or in the relevant standard. If the results of the specified and alternative method, requirement, or procedure do not agree, the results obtained by the specified method, requirement, or procedure shall prevail.

(4)(i) *Request to use alternative monitoring procedure*. An owner or operator who wishes to use an alternative monitoring procedure must submit an application to the Administrator as described in paragraph (f)(4)(ii) of this section. The application may be submitted at any time provided that the monitoring procedure is not the performance test method used to demonstrate compliance with a relevant standard or other requirement. If the alternative monitoring procedure will serve as

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the performance test method that is to be used to demonstrate compliance with a relevant standard, the application must be submitted at least 60 days before the performance evaluation is scheduled to begin and must meet the requirements for an alternative test method under §63.7(f).

(ii) The application must contain a description of the proposed alternative monitoring system which addresses the four elements contained in the definition of monitoring in §63.2 and a performance evaluation test plan, if required, as specified in paragraph (e)(3) of this section. In addition, the application must include information justifying the owner or operator's request for an alternative monitoring method, such as the technical or economic infeasibility, or the impracticality, of the affected source using the required method.

(iii) The owner or operator may submit the information required in this paragraph well in advance of the submittal dates specified in paragraph (f)(4)(i) above to ensure a timely review by the Administrator in order to meet the compliance demonstration date specified in this section or the relevant standard.

(iv) Application for minor changes to monitoring procedures, as specified in paragraph (b)(1) of this section, may be made in the site-specific performance evaluation plan.

(5) *Approval of request to use alternative monitoring procedure.* (f) The Administrator will notify the owner or operator of approval or intention to deny approval of the request to use an alternative monitoring method within 30 calendar days after receipt of the original request and within 30 calendar days after receipt of any supplementary information that is submitted. If a request for a minor change is made in conjunction with site-specific performance evaluation plan, then approval of the plan will constitute approval of the minor change. Before disapproving any request to use an alternative monitoring method, the Administrator will notify the applicant of the Administrator's intention to disapprove the request together with—

(A) Notice of the information and findings on which the intended disapproval is based; and

(B) Notice of opportunity for the owner or operator to present additional information to the Administrator before final action on the request. At the time the Administrator notifies the applicant of his or her intention to disapprove the request, the Administrator will specify how much time the owner or operator will have after being notified of the intended disapproval to submit the additional information.

(ii) The Administrator may establish general procedures and criteria in a relevant standard to accomplish the requirements of paragraph (f)(5)(i) of this section.

(iii) If the Administrator approves the use of an alternative monitoring method for an affected source under paragraph (f)(5)(i) of this section, the owner or operator of such source shall continue to use the alternative monitoring method until he or she receives approval from the Administrator to use another monitoring method as allowed by §63.8(f).

(6) *Alternative to the relative accuracy test.* An alternative to the relative accuracy test for CEMS specified in a relevant standard may be requested as follows:

(i) *Criteria for approval of alternative procedures.* An alternative to the test method for determining relative accuracy is available for affected sources with emission rates demonstrated to be less than 50 percent of the relevant standard. The owner or operator of an affected source may petition the Administrator under paragraph (f)(6)(ii) of this section to substitute the relative accuracy test in section 7 of Performance Specification 2 with the procedures in section 10 if the results of a performance test conducted according to the requirements in §63.7, or other tests performed following the criteria in §63.7, demonstrate that the emission rate of the pollutant of interest in the units of the relevant standard is less than 50 percent of the relevant standard. For affected sources subject to emission limitations expressed as control efficiency levels, the owner or operator may petition the Administrator to substitute the relative accuracy test with the procedures in section 10 of Performance Specification 2 if the control device exhaust emission rate is less than 50 percent of the level needed to meet the control efficiency requirement. The alternative procedures do not apply if the CEMS is used continuously to determine compliance with the relevant standard.

(ii) *Petition to use alternative to relative accuracy test.* The petition to use an alternative to the relative accuracy test shall include a detailed description of the procedures to be applied, the location and the procedure for conducting the alternative, the concentration or response levels of the alternative relative accuracy materials, and the other equipment checks included in the alternative procedure(s). The Administrator will review the petition for completeness and applicability. The Administrator's determination to approve an alternative will depend on the intended use of the CEMS data and may require specifications more stringent than in Performance Specification 2.

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(iii) *Rescission of approval to use alternative to relative accuracy test.* The Administrator will review the permission to use an alternative to the CEMS relative accuracy test and may rescind such permission if the CEMS data from a successful completion of the alternative relative accuracy procedure indicate that the affected source's emissions are approaching the level of the relevant standard. The criterion for reviewing the permission is that the collection of CEMS data shows that emissions have exceeded 70 percent of the relevant standard for any averaging period, as specified in the relevant standard. For affected sources subject to emission limitations expressed as control efficiency levels, the criterion for reviewing the permission is that the collection of CEMS data shows that exhaust emissions have exceeded 70 percent of the level needed to meet the control efficiency requirement for any averaging period, as specified in the relevant standard. The owner or operator of the affected source shall maintain records and determine the level of emissions relative to the criterion for permission to use an alternative for relative accuracy testing. If this criterion is exceeded, the owner or operator shall notify the Administrator within 10 days of such occurrence and include a description of the nature and cause of the increased emissions. The Administrator will review the notification and may rescind permission to use an alternative and require the owner or operator to conduct a relative accuracy test of the CEMS as specified in section 7 of Performance Specification 2.

(g) *Reduction of monitoring data.* (1) The owner or operator of each CMS must reduce the monitoring data as specified in paragraphs (g)(1) through (5) of this section.

(2) The owner or operator of each COMS shall reduce all data to 6-minute averages calculated from 36 or more data points equally spaced over each 6-minute period. Data from CEMS for measurement other than opacity, unless otherwise specified in the relevant standard, shall be reduced to 1-hour averages computed from four or more data points equally spaced over each 1-hour period, except during periods when calibration, quality assurance, or maintenance activities pursuant to provisions of this part are being performed. During these periods, a valid hourly average shall consist of at least two data points with each representing a 15-minute period. Alternatively, an arithmetic or integrated 1-hour average of CEMS data may be used. Time periods for averaging are defined in §63.2.

(3) The data may be recorded in reduced or nonreduced form (e.g., ppm pollutant and percent O₂ or ng/J of pollutant).

(4) All emission data shall be converted into units of the relevant standard for reporting purposes using the conversion procedures specified in that standard. After conversion into units of the relevant standard, the data may be rounded to the same number of significant digits as used in that standard to specify the emission limit (e.g., rounded to the nearest 1 percent opacity).

(5) Monitoring data recorded during periods of unavoidable CMS breakdowns, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high-level adjustments must not be included in any data average computed under this part. For the owner or operator complying with the requirements of §63.10(b)(2)(vii)(A) or (B), data averages must include any data recorded during periods of monitor breakdown or malfunction.

[59 FR 12430, Mar. 16, 1994, as amended at 64 FR 7468, Feb. 12, 1999; 67 FR 16603, Apr. 5, 2002; 71 FR 20455, Apr. 20, 2006]

§63.9 Notification requirements.

(a) *Applicability and general information.* (1) The applicability of this section is set out in §63.1(a)(4).

(2) For affected sources that have been granted an extension of compliance under subpart D of this part, the requirements of this section do not apply to those sources while they are operating under such compliance extensions.

(3) If any State requires a notice that contains all the information required in a notification listed in this section, the owner or operator may send the Administrator a copy of the notice sent to the State to satisfy the requirements of this section for that notification.

(4)(i) Before a State has been delegated the authority to implement and enforce notification requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit notifications to the appropriate Regional Office of the EPA (to the attention of the Director of the Division indicated in the list of the EPA Regional Offices in §63.13).

(ii) After a State has been delegated the authority to implement and enforce notification requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit notifications to the delegated State authority (which may be the same as the permitting authority). In addition, if the delegated (permitting) authority is the State, the owner or operator shall send a copy of each notification submitted to the State to the appropriate

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Regional Office of the EPA, as specified in paragraph (a)(4)(i) of this section. The Regional Office may waive this requirement for any notifications at its discretion.

(b) *Initial notifications.* (1)(i) The requirements of this paragraph apply to the owner or operator of an affected source when such source becomes subject to a relevant standard.

(ii) If an area source that otherwise would be subject to an emission standard or other requirement established under this part if it were a major source subsequently increases its emissions of hazardous air pollutants (or its potential to emit hazardous air pollutants) such that the source is a major source that is subject to the emission standard or other requirement, such source shall be subject to the notification requirements of this section.

(iii) Affected sources that are required under this paragraph to submit an initial notification may use the application for approval of construction or reconstruction under §63.5(d) of this subpart, if relevant, to fulfill the initial notification requirements of this paragraph.

(2) The owner or operator of an affected source that has an initial startup before the effective date of a relevant standard under this part shall notify the Administrator in writing that the source is subject to the relevant standard. The notification, which shall be submitted not later than 120 calendar days after the effective date of the relevant standard (or within 120 calendar days after the source becomes subject to the relevant standard), shall provide the following information:

- (i) The name and address of the owner or operator;
- (ii) The address (i.e., physical location) of the affected source;
- (iii) An identification of the relevant standard, or other requirement, that is the basis of the notification and the source's compliance date;
- (iv) A brief description of the nature, size, design, and method of operation of the source and an identification of the types of emission points within the affected source subject to the relevant standard and types of hazardous air pollutants emitted; and
- (v) A statement of whether the affected source is a major source or an area source.

(3) [Reserved]

(4) The owner or operator of a new or reconstructed major affected source for which an application for approval of construction or reconstruction is required under §63.5(d) must provide the following information in writing to the Administrator:

(i) A notification of intention to construct a new major-emitting affected source, reconstruct a major-emitting affected source, or reconstruct a major source such that the source becomes a major-emitting affected source with the application for approval of construction or reconstruction as specified in §63.5(d)(1)(i); and

(ii)-(iv) [Reserved]

(v) A notification of the actual date of startup of the source, delivered or postmarked within 15 calendar days after that date.

(5) The owner or operator of a new or reconstructed affected source for which an application for approval of construction or reconstruction is not required under §63.5(d) must provide the following information in writing to the Administrator:

(i) A notification of intention to construct a new affected source, reconstruct an affected source, or reconstruct a source such that the source becomes an affected source, and

(ii) A notification of the actual date of startup of the source, delivered or postmarked within 15 calendar days after that date.

(iii) Unless the owner or operator has requested and received prior permission from the Administrator to submit less than the information in §63.5(d), the notification must include the information required on the application for approval of construction or reconstruction as specified in §63.5(d)(1)(i).

(c) *Request for extension of compliance.* If the owner or operator of an affected source cannot comply with a relevant standard by the applicable compliance date for that source, or if the owner or operator has installed BACT or technology to

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meet LAER consistent with §63.6(i)(5) of this subpart, he/she may submit to the Administrator (or the State with an approved permit program) a request for an extension of compliance as specified in §63.6(i)(4) through §63.6(i)(6).

(d) *Notification that source is subject to special compliance requirements.* An owner or operator of a new source that is subject to special compliance requirements as specified in §63.6(b)(3) and §63.6(b)(4) shall notify the Administrator of his/her compliance obligations not later than the notification dates established in paragraph (b) of this section for new sources that are not subject to the special provisions.

(e) *Notification of performance test.* The owner or operator of an affected source shall notify the Administrator in writing of his or her intention to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin to allow the Administrator to review and approve the site-specific test plan required under §63.7(e), if requested by the Administrator, and to have an observer present during the test.

(f) *Notification of opacity and visible emission observations.* The owner or operator of an affected source shall notify the Administrator in writing of the anticipated date for conducting the opacity or visible emission observations specified in §63.6(h)(5), if such observations are required for the source by a relevant standard. The notification shall be submitted with the notification of the performance test date, as specified in paragraph (e) of this section, or if no performance test is required or visibility or other conditions prevent the opacity or visible emission observations from being conducted concurrently with the initial performance test required under §63.7, the owner or operator shall deliver or postmark the notification not less than 30 days before the opacity or visible emission observations are scheduled to take place.

(g) *Additional notification requirements for sources with continuous monitoring systems.* The owner or operator of an affected source required to use a CMS by a relevant standard shall furnish the Administrator written notification as follows:

(1) A notification of the date the CMS performance evaluation under §63.8(c) is scheduled to begin, submitted simultaneously with the notification of the performance test date required under §63.7(b). If no performance test is required, or if the requirement to conduct a performance test has been waived for an affected source under §63.7(h), the owner or operator shall notify the Administrator in writing of the date of the performance evaluation at least 60 calendar days before the evaluation is scheduled to begin;

(2) A notification that COMS data results will be used to determine compliance with the applicable opacity emission standard during a performance test required by §63.7 in lieu of Method 9 or other opacity emissions test method data, as allowed by §63.6(h)(7)(ii), if compliance with an opacity emission standard is required for the source by a relevant standard. The notification shall be submitted at least 60 calendar days before the performance test is scheduled to begin; and

(3) A notification that the criterion necessary to continue use of an alternative to relative accuracy testing, as provided by §63.8(f)(6), has been exceeded. The notification shall be delivered or postmarked not later than 10 days after the occurrence of such exceedance, and it shall include a description of the nature and cause of the increased emissions.

(h) *Notification of compliance status.* (1) The requirements of paragraphs (h)(2) through (h)(4) of this section apply when an affected source becomes subject to a relevant standard.

(2)(i) Before a title V permit has been issued to the owner or operator of an affected source, and each time a notification of compliance status is required under this part, the owner or operator of such source shall submit to the Administrator a notification of compliance status, signed by the responsible official who shall certify its accuracy, attesting to whether the source has complied with the relevant standard. The notification shall list—

(A) The methods that were used to determine compliance;

(B) The results of any performance tests, opacity or visible emission observations, continuous monitoring system (CMS) performance evaluations, and/or other monitoring procedures or methods that were conducted;

(C) The methods that will be used for determining continuing compliance, including a description of monitoring and reporting requirements and test methods;

(D) The type and quantity of hazardous air pollutants emitted by the source (or surrogate pollutants if specified in the relevant standard), reported in units and averaging times and in accordance with the test methods specified in the relevant standard;

(E) If the relevant standard applies to both major and area sources, an analysis demonstrating whether the affected source is a major source (using the emissions data generated for this notification);

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(F) A description of the air pollution control equipment (or method) for each emission point, including each control device (or method) for each hazardous air pollutant and the control efficiency (percent) for each control device (or method); and

(G) A statement by the owner or operator of the affected existing, new, or reconstructed source as to whether the source has complied with the relevant standard or other requirements.

(ii) The notification must be sent before the close of business on the 60th day following the completion of the relevant compliance demonstration activity specified in the relevant standard (unless a different reporting period is specified in the standard, in which case the letter must be sent before the close of business on the day the report of the relevant testing or monitoring results is required to be delivered or postmarked). For example, the notification shall be sent before close of business on the 60th (or other required) day following completion of the initial performance test and again before the close of business on the 60th (or other required) day following the completion of any subsequent required performance test. If no performance test is required but opacity or visible emission observations are required to demonstrate compliance with an opacity or visible emission standard under this part, the notification of compliance status shall be sent before close of business on the 30th day following the completion of opacity or visible emission observations. Notifications may be combined as long as the due date requirement for each notification is met.

(3) After a title V permit has been issued to the owner or operator of an affected source, the owner or operator of such source shall comply with all requirements for compliance status reports contained in the source's title V permit, including reports required under this part. After a title V permit has been issued to the owner or operator of an affected source, and each time a notification of compliance status is required under this part, the owner or operator of such source shall submit the notification of compliance status to the appropriate permitting authority following completion of the relevant compliance demonstration activity specified in the relevant standard.

(4) [Reserved]

(5) If an owner or operator of an affected source submits estimates or preliminary information in the application for approval of construction or reconstruction required in §63.5(d) in place of the actual emissions data or control efficiencies required in paragraphs (d)(1)(i)(H) and (d)(2) of §63.5, the owner or operator shall submit the actual emissions data and other correct information as soon as available but no later than with the initial notification of compliance status required in this section.

(6) Advice on a notification of compliance status may be obtained from the Administrator.

(i) *Adjustment to time periods or postmark deadlines for submittal and review of required communications.* (1)(i) Until an adjustment of a time period or postmark deadline has been approved by the Administrator under paragraphs (i)(2) and (i)(3) of this section, the owner or operator of an affected source remains strictly subject to the requirements of this part.

(ii) An owner or operator shall request the adjustment provided for in paragraphs (i)(2) and (i)(3) of this section each time he or she wishes to change an applicable time period or postmark deadline specified in this part.

(2) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. An owner or operator who wishes to request a change in a time period or postmark deadline for a particular requirement shall request the adjustment in writing as soon as practicable before the subject activity is required to take place. The owner or operator shall include in the request whatever information he or she considers useful to convince the Administrator that an adjustment is warranted.

(3) If, in the Administrator's judgment, an owner or operator's request for an adjustment to a particular time period or postmark deadline is warranted, the Administrator will approve the adjustment. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an adjustment within 15 calendar days of receiving sufficient information to evaluate the request.

(4) If the Administrator is unable to meet a specified deadline, he or she will notify the owner or operator of any significant delay and inform the owner or operator of the amended schedule.

(j) *Change in information already provided.* Any change in the information already provided under this section shall be provided to the Administrator in writing within 15 calendar days after the change.

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[59 FR 12430, Mar. 16, 1994, as amended at 64 FR 7468, Feb. 12, 1999; 67 FR 16604, Apr. 5, 2002; 68 FR 32601, May 30, 2003]

§63.10 Recordkeeping and reporting requirements.

(a) *Applicability and general information.* (1) The applicability of this section is set out in §63.1(a)(4).

(2) For affected sources that have been granted an extension of compliance under subpart D of this part, the requirements of this section do not apply to those sources while they are operating under such compliance extensions.

(3) If any State requires a report that contains all the information required in a report listed in this section, an owner or operator may send the Administrator a copy of the report sent to the State to satisfy the requirements of this section for that report.

(4)(i) Before a State has been delegated the authority to implement and enforce recordkeeping and reporting requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit reports to the appropriate Regional Office of the EPA (to the attention of the Director of the Division indicated in the list of the EPA Regional Offices in §63.13).

(ii) After a State has been delegated the authority to implement and enforce recordkeeping and reporting requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit reports to the delegated State authority (which may be the same as the permitting authority). In addition, if the delegated (permitting) authority is the State, the owner or operator shall send a copy of each report submitted to the State to the appropriate Regional Office of the EPA, as specified in paragraph (a)(4)(i) of this section. The Regional Office may waive this requirement for any reports at its discretion.

(5) If an owner or operator of an affected source in a State with delegated authority is required to submit periodic reports under this part to the State, and if the State has an established timeline for the submission of periodic reports that is consistent with the reporting frequency(ies) specified for such source under this part, the owner or operator may change the dates by which periodic reports under this part shall be submitted (without changing the frequency of reporting) to be consistent with the State's schedule by mutual agreement between the owner or operator and the State. For each relevant standard established pursuant to section 112 of the Act, the allowance in the previous sentence applies in each State beginning 1 year after the affected source's compliance date for that standard. Procedures governing the implementation of this provision are specified in §63.9(i).

(6) If an owner or operator supervises one or more stationary sources affected by more than one standard established pursuant to section 112 of the Act, he/she may arrange by mutual agreement between the owner or operator and the Administrator (or the State permitting authority) a common schedule on which periodic reports required for each source shall be submitted throughout the year. The allowance in the previous sentence applies in each State beginning 1 year after the latest compliance date for any relevant standard established pursuant to section 112 of the Act for any such affected source(s). Procedures governing the implementation of this provision are specified in §63.9(i).

(7) If an owner or operator supervises one or more stationary sources affected by standards established pursuant to section 112 of the Act (as amended November 15, 1990) and standards set under part 60, part 61, or both such parts of this chapter, he/she may arrange by mutual agreement between the owner or operator and the Administrator (or the State permitting authority) a common schedule on which periodic reports required by each relevant (i.e., applicable) standard shall be submitted throughout the year. The allowance in the previous sentence applies in each State beginning 1 year after the stationary source is required to be in compliance with the relevant section 112 standard, or 1 year after the stationary source is required to be in compliance with the applicable part 60 or part 61 standard, whichever is latest. Procedures governing the implementation of this provision are specified in §63.9(i).

(b) *General recordkeeping requirements.* (1) The owner or operator of an affected source subject to the provisions of this part shall maintain files of all information (including all reports and notifications) required by this part recorded in a form suitable and readily available for expeditious inspection and review. The files shall be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years of data may be retained off site. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.

(2) The owner or operator of an affected source subject to the provisions of this part shall maintain relevant records for such source of—

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- (i) The occurrence and duration of each startup or shutdown when the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards;
- (ii) The occurrence and duration of each malfunction of operation (i.e., process equipment) or the required air pollution control and monitoring equipment;
- (iii) All required maintenance performed on the air pollution control and monitoring equipment;
- (iv)(A) Actions taken during periods of startup or shutdown when the source exceeded applicable emission limitations in a relevant standard and when the actions taken are different from the procedures specified in the affected source's startup, shutdown, and malfunction plan (see §63.6(e)(3)); or
- (B) Actions taken during periods of malfunction (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) when the actions taken are different from the procedures specified in the affected source's startup, shutdown, and malfunction plan (see §63.6(e)(3));
- (v) All information necessary, including actions taken, to demonstrate conformance with the affected source's startup, shutdown, and malfunction plan (see §63.6(e)(3)) when all actions taken during periods of startup or shutdown (and the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards), and malfunction (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) are consistent with the procedures specified in such plan. (The information needed to demonstrate conformance with the startup, shutdown, and malfunction plan may be recorded using a "checklist," or some other effective form of recordkeeping, in order to minimize the recordkeeping burden for conforming events);
- (vi) Each period during which a CMS is malfunctioning or inoperative (including out-of-control periods);
- (vii) All required measurements needed to demonstrate compliance with a relevant standard (including, but not limited to, 15-minute averages of CMS data, raw performance testing measurements, and raw performance evaluation measurements, that support data that the source is required to report);
- (A) This paragraph applies to owners or operators required to install a continuous emissions monitoring system (CEMS) where the CEMS installed is automated, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. An automated CEMS records and reduces the measured data to the form of the pollutant emission standard through the use of a computerized data acquisition system. In lieu of maintaining a file of all CEMS subhourly measurements as required under paragraph (b)(2)(vii) of this section, the owner or operator shall retain the most recent consecutive three averaging periods of subhourly measurements and a file that contains a hard copy of the data acquisition system algorithm used to reduce the measured data into the reportable form of the standard.
- (B) This paragraph applies to owners or operators required to install a CEMS where the measured data is manually reduced to obtain the reportable form of the standard, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. In lieu of maintaining a file of all CEMS subhourly measurements as required under paragraph (b)(2)(vii) of this section, the owner or operator shall retain all subhourly measurements for the most recent reporting period. The subhourly measurements shall be retained for 120 days from the date of the most recent summary or excess emission report submitted to the Administrator.
- (C) The Administrator or delegated authority, upon notification to the source, may require the owner or operator to maintain all measurements as required by paragraph (b)(2)(vii), if the administrator or the delegated authority determines these records are required to more accurately assess the compliance status of the affected source.
- (viii) All results of performance tests, CMS performance evaluations, and opacity and visible emission observations;
- (ix) All measurements as may be necessary to determine the conditions of performance tests and performance evaluations;
- (x) All CMS calibration checks;
- (xi) All adjustments and maintenance performed on CMS;
- (xii) Any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements under this part, if the source has been granted a waiver under paragraph (f) of this section;

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- (xiii) All emission levels relative to the criterion for obtaining permission to use an alternative to the relative accuracy test, if the source has been granted such permission under §63.8(f)(6); and
- (xiv) All documentation supporting initial notifications and notifications of compliance status under §63.9.
- (3) *Recordkeeping requirement for applicability determinations.* If an owner or operator determines that his or her stationary source that emits (or has the potential to emit, without considering controls) one or more hazardous air pollutants regulated by any standard established pursuant to section 112(d) or (f), and that stationary source is in the source category regulated by the relevant standard, but that source is not subject to the relevant standard (or other requirement established under this part) because of limitations on the source's potential to emit or an exclusion, the owner or operator must keep a record of the applicability determination on site at the source for a period of 5 years after the determination, or until the source changes its operations to become an affected source, whichever comes first. The record of the applicability determination must be signed by the person making the determination and include an analysis (or other information) that demonstrates why the owner or operator believes the source is unaffected (e.g., because the source is an area source). The analysis (or other information) must be sufficiently detailed to allow the Administrator to make a finding about the source's applicability status with regard to the relevant standard or other requirement. If relevant, the analysis must be performed in accordance with requirements established in relevant subparts of this part for this purpose for particular categories of stationary sources. If relevant, the analysis should be performed in accordance with EPA guidance materials published to assist sources in making applicability determinations under section 112, if any. The requirements to determine applicability of a standard under §63.1(b)(3) and to record the results of that determination under paragraph (b)(3) of this section shall not by themselves create an obligation for the owner or operator to obtain a title V permit.
- (c) *Additional recordkeeping requirements for sources with continuous monitoring systems.* In addition to complying with the requirements specified in paragraphs (b)(1) and (b)(2) of this section, the owner or operator of an affected source required to install a CMS by a relevant standard shall maintain records for such source of—
- (1) All required CMS measurements (including monitoring data recorded during unavoidable CMS breakdowns and out-of-control periods);
- (2)-(4) [Reserved]
- (5) The date and time identifying each period during which the CMS was inoperative except for zero (low-level) and high-level checks;
- (6) The date and time identifying each period during which the CMS was out of control, as defined in §63.8(c)(7);
- (7) The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions and parameter monitoring exceedances, as defined in the relevant standard(s), that occurs during startups, shutdowns, and malfunctions of the affected source;
- (8) The specific identification (i.e., the date and time of commencement and completion) of each time period of excess emissions and parameter monitoring exceedances, as defined in the relevant standard(s), that occurs during periods other than startups, shutdowns, and malfunctions of the affected source;
- (9) [Reserved]
- (10) The nature and cause of any malfunction (if known);
- (11) The corrective action taken or preventive measures adopted;
- (12) The nature of the repairs or adjustments to the CMS that was inoperative or out of control;
- (13) The total process operating time during the reporting period; and
- (14) All procedures that are part of a quality control program developed and implemented for CMS under §63.8(d).
- (15) In order to satisfy the requirements of paragraphs (c)(10) through (c)(12) of this section and to avoid duplicative recordkeeping efforts, the owner or operator may use the affected source's startup, shutdown, and malfunction plan or records kept to satisfy the recordkeeping requirements of the startup, shutdown, and malfunction plan specified in §63.6(e), provided that such plan and records adequately address the requirements of paragraphs (c)(10) through (c)(12).

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(d) *General reporting requirements.* (1) Notwithstanding the requirements in this paragraph or paragraph (e) of this section, and except as provided in §63.16, the owner or operator of an affected source subject to reporting requirements under this part shall submit reports to the Administrator in accordance with the reporting requirements in the relevant standard(s).

(2) *Reporting results of performance tests.* Before a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall report the results of any performance test under §63.7 to the Administrator. After a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall report the results of a required performance test to the appropriate permitting authority. The owner or operator of an affected source shall report the results of the performance test to the Administrator (or the State with an approved permit program) before the close of business on the 60th day following the completion of the performance test, unless specified otherwise in a relevant standard or as approved otherwise in writing by the Administrator. The results of the performance test shall be submitted as part of the notification of compliance status required under §63.9(h).

(3) *Reporting results of opacity or visible emission observations.* The owner or operator of an affected source required to conduct opacity or visible emission observations by a relevant standard shall report the opacity or visible emission results (produced using Test Method 9 or Test Method 22, or an alternative to these test methods) along with the results of the performance test required under §63.7. If no performance test is required, or if visibility or other conditions prevent the opacity or visible emission observations from being conducted concurrently with the performance test required under §63.7, the owner or operator shall report the opacity or visible emission results before the close of business on the 30th day following the completion of the opacity or visible emission observations.

(4) *Progress reports.* The owner or operator of an affected source who is required to submit progress reports as a condition of receiving an extension of compliance under §63.6(i) shall submit such reports to the Administrator (or the State with an approved permit program) by the dates specified in the written extension of compliance.

(5)(i) *Periodic startup, shutdown, and malfunction reports.* If actions taken by an owner or operator during a startup or shutdown (and the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards), or malfunction of an affected source (including actions taken to correct a malfunction) are consistent with the procedures specified in the source's startup, shutdown, and malfunction plan (see §63.6(e)(3)), the owner or operator shall state such information in a startup, shutdown, and malfunction report. Actions taken to minimize emissions during such startups, shutdowns, and malfunctions shall be summarized in the report and may be done in checklist form; if actions taken are the same for each event, only one checklist is necessary. Such a report shall also include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. Reports shall only be required if a startup or shutdown caused the source to exceed any applicable emission limitation in the relevant emission standards, or if a malfunction occurred during the reporting period. The startup, shutdown, and malfunction report shall consist of a letter, containing the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy, that shall be submitted to the Administrator semiannually (or on a more frequent basis if specified otherwise in a relevant standard or as established otherwise by the permitting authority in the source's title V permit). The startup, shutdown, and malfunction report shall be delivered or postmarked by the 30th day following the end of each calendar half (or other calendar reporting period, as appropriate). If the owner or operator is required to submit excess emissions and continuous monitoring system performance (or other periodic) reports under this part, the startup, shutdown, and malfunction reports required under this paragraph may be submitted simultaneously with the excess emissions and continuous monitoring system performance (or other) reports. If startup, shutdown, and malfunction reports are submitted with excess emissions and continuous monitoring system performance (or other periodic) reports, and the owner or operator receives approval to reduce the frequency of reporting for the latter under paragraph (e) of this section, the frequency of reporting for the startup, shutdown, and malfunction reports also may be reduced if the Administrator does not object to the intended change. The procedures to implement the allowance in the preceding sentence shall be the same as the procedures specified in paragraph (e)(3) of this section.

(ii) *Immediate startup, shutdown, and malfunction reports.* Notwithstanding the allowance to reduce the frequency of reporting for periodic startup, shutdown, and malfunction reports under paragraph (d)(5)(i) of this section, any time an action taken by an owner or operator during a startup or shutdown that caused the source to exceed any applicable emission limitation in the relevant emission standards, or malfunction (including actions taken to correct a malfunction) is not consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, the owner or operator shall report the actions taken for that event within 2 working days after commencing actions inconsistent with the plan followed by a letter within 7 working days after the end of the event. The immediate report required under this paragraph (d)(5)(ii) shall consist of a telephone call (or facsimile (FAX) transmission) to the Administrator within 2 working days after commencing actions inconsistent with the plan, and it shall be followed by a letter, delivered or postmarked within

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7 working days after the end of the event, that contains the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy, explaining the circumstances of the event, the reasons for not following the startup, shutdown, and malfunction plan, describing all excess emissions and/or parameter monitoring exceedances which are believed to have occurred (or could have occurred in the case of malfunctions), and actions taken to minimize emissions in conformance with §63.6(e)(1)(i). Notwithstanding the requirements of the previous sentence, after the effective date of an approved permit program in the State in which an affected source is located, the owner or operator may make alternative reporting arrangements, in advance, with the permitting authority in that State. Procedures governing the arrangement of alternative reporting requirements under this paragraph (d)(5)(ii) are specified in §63.9(i).

(e) *Additional reporting requirements for sources with continuous monitoring systems—(1) General.* When more than one CEMS is used to measure the emissions from one affected source (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required for each CEMS.

(2) *Reporting results of continuous monitoring system performance evaluations.* (i) The owner or operator of an affected source required to install a CMS by a relevant standard shall furnish the Administrator a copy of a written report of the results of the CMS performance evaluation, as required under §63.8(e), simultaneously with the results of the performance test required under §63.7, unless otherwise specified in the relevant standard.

(ii) The owner or operator of an affected source using a COMS to determine opacity compliance during any performance test required under §63.7 and described in §63.6(d)(6) shall furnish the Administrator two or, upon request, three copies of a written report of the results of the COMS performance evaluation conducted under §63.8(e). The copies shall be furnished at least 15 calendar days before the performance test required under §63.7 is conducted.

(3) *Excess emissions and continuous monitoring system performance report and summary report.* (i) Excess emissions and parameter monitoring exceedances are defined in relevant standards. The owner or operator of an affected source required to install a CMS by a relevant standard shall submit an excess emissions and continuous monitoring system performance report and/or a summary report to the Administrator semiannually, except when—

(A) More frequent reporting is specifically required by a relevant standard;

(B) The Administrator determines on a case-by-case basis that more frequent reporting is necessary to accurately assess the compliance status of the source; or

(C) [Reserved]

(D) The affected source is complying with the Performance Track Provisions of §63.16, which allows less frequent reporting.

(ii) *Request to reduce frequency of excess emissions and continuous monitoring system performance reports.* Notwithstanding the frequency of reporting requirements specified in paragraph (e)(3)(i) of this section, an owner or operator who is required by a relevant standard to submit excess emissions and continuous monitoring system performance (and summary) reports on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:

(A) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected source's excess emissions and continuous monitoring system performance reports continually demonstrate that the source is in compliance with the relevant standard;

(B) The owner or operator continues to comply with all recordkeeping and monitoring requirements specified in this subpart and the relevant standard; and

(C) The Administrator does not object to a reduced frequency of reporting for the affected source, as provided in paragraph (e)(3)(iii) of this section.

(iii) The frequency of reporting of excess emissions and continuous monitoring system performance (and summary) reports required to comply with a relevant standard may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the 5-year recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce

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the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.

(iv) As soon as CMS data indicate that the source is not in compliance with any emission limitation or operating parameter specified in the relevant standard, the frequency of reporting shall revert to the frequency specified in the relevant standard, and the owner or operator shall submit an excess emissions and continuous monitoring system performance (and summary) report for the noncomplying emission points at the next appropriate reporting period following the noncomplying event. After demonstrating ongoing compliance with the relevant standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard, as provided for in paragraphs (e)(3)(ii) and (c)(3)(iii) of this section.

(v) *Content and submittal dates for excess emissions and monitoring system performance reports.* All excess emissions and monitoring system performance reports and all summary reports, if required, shall be delivered or postmarked by the 30th day following the end of each calendar half or quarter, as appropriate. Written reports of excess emissions or exceedances of process or control system parameters shall include all the information required in paragraphs (c)(5) through (c)(13) of this section, in §63.8(c)(7) and §63.8(c)(8), and in the relevant standard, and they shall contain the name, title, and signature of the responsible official who is certifying the accuracy of the report. When no excess emissions or exceedances of a parameter have occurred, or a CMS has not been inoperative, out of control, repaired, or adjusted, such information shall be stated in the report.

(vi) *Summary report.* As required under paragraphs (e)(3)(vii) and (c)(3)(viii) of this section, one summary report shall be submitted for the hazardous air pollutants monitored at each affected source (unless the relevant standard specifies that more than one summary report is required, e.g., one summary report for each hazardous air pollutant monitored). The summary report shall be entitled "Summary Report—Gaseous and Opacity Excess Emission and Continuous Monitoring System Performance" and shall contain the following information:

- (A) The company name and address of the affected source;
- (B) An identification of each hazardous air pollutant monitored at the affected source;
- (C) The beginning and ending dates of the reporting period;
- (D) A brief description of the process units;
- (E) The emission and operating parameter limitations specified in the relevant standard(s);
- (F) The monitoring equipment manufacturer(s) and model number(s);
- (G) The date of the latest CMS certification or audit;
- (H) The total operating time of the affected source during the reporting period;

(I) An emission data summary (or similar summary if the owner or operator monitors control system parameters), including the total duration of excess emissions during the reporting period (recorded in minutes for opacity and hours for gases), the total duration of excess emissions expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total duration of excess emissions during the reporting period into those that are due to startup/shutdown, control equipment problems, process problems, other known causes, and other unknown causes;

(J) A CMS performance summary (or similar summary if the owner or operator monitors control system parameters), including the total CMS downtime during the reporting period (recorded in minutes for opacity and hours for gases), the total duration of CMS downtime expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total CMS downtime during the reporting period into periods that are due to monitoring equipment malfunctions, nonmonitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and other unknown causes;

- (K) A description of any changes in CMS, processes, or controls since the last reporting period;
- (L) The name, title, and signature of the responsible official who is certifying the accuracy of the report; and
- (M) The date of the report.

(vii) If the total duration of excess emissions or process or control system parameter exceedances for the reporting period is less than 1 percent of the total operating time for the reporting period, and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report shall be submitted, and the full excess emissions and continuous monitoring system performance report need not be submitted unless required by the Administrator.

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(viii) If the total duration of excess emissions or process or control system parameter exceedances for the reporting period is 1 percent or greater of the total operating time for the reporting period, or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, both the summary report and the excess emissions and continuous monitoring system performance report shall be submitted.

(4) *Reporting continuous opacity monitoring system data produced during a performance test.* The owner or operator of an affected source required to use a COMS shall record the monitoring data produced during a performance test required under §63.7 and shall furnish the Administrator a written report of the monitoring results. The report of COMS data shall be submitted simultaneously with the report of the performance test results required in paragraph (d)(2) of this section.

(f) *Waiver of recordkeeping or reporting requirements.* (1) Until a waiver of a recordkeeping or reporting requirement has been granted by the Administrator under this paragraph, the owner or operator of an affected source remains subject to the requirements of this section.

(2) Recordkeeping or reporting requirements may be waived upon written application to the Administrator if, in the Administrator's judgment, the affected source is achieving the relevant standard(s), or the source is operating under an extension of compliance, or the owner or operator has requested an extension of compliance and the Administrator is still considering that request.

(3) If an application for a waiver of recordkeeping or reporting is made, the application shall accompany the request for an extension of compliance under §63.6(i), any required compliance progress report or compliance status report required under this part (such as under §63.6(f) and §63.9(h)) or in the source's title V permit, or an excess emissions and continuous monitoring system performance report required under paragraph (e) of this section, whichever is applicable. The application shall include whatever information the owner or operator considers useful to convince the Administrator that a waiver of recordkeeping or reporting is warranted.

(4) The Administrator will approve or deny a request for a waiver of recordkeeping or reporting requirements under this paragraph when he/she—

- (i) Approves or denies an extension of compliance; or
- (ii) Makes a determination of compliance following the submission of a required compliance status report or excess emissions and continuous monitoring systems performance report; or
- (iii) Makes a determination of suitable progress towards compliance following the submission of a compliance progress report, whichever is applicable.

(5) A waiver of any recordkeeping or reporting requirement granted under this paragraph may be conditioned on other recordkeeping or reporting requirements deemed necessary by the Administrator.

(6) Approval of any waiver granted under this section shall not abrogate the Administrator's authority under the Act or in any way prohibit the Administrator from later canceling the waiver. The cancellation will be made only after notice is given to the owner or operator of the affected source.

[59 FR 12430, Mar. 16, 1994, as amended at 64 FR 7468, Feb. 12, 1999; 67 FR 16604, Apr. 5, 2002; 68 FR 32601, May 30, 2003; 69 FR 21752, Apr. 22, 2004; 71 FR 20455, Apr. 20, 2006]

§63.11 Control device and work practice requirements.

(a) *Applicability.* (1) The applicability of this section is set out in §63.1(a)(4).

(2) This section contains requirements for control devices used to comply with applicable subparts of this part. The requirements are placed here for administrative convenience and apply only to facilities covered by subparts referring to this section.

(3) This section also contains requirements for an alternative work practice used to identify leaking equipment. This alternative work practice is placed here for administrative convenience and is available to all subparts in 40 CFR parts 60, 61, 63, and 65 that require monitoring of equipment with a 40 CFR part 60, appendix A-7, Method 21 monitor.

(b) *Flares.* (1) Owners or operators using flares to comply with the provisions of this part shall monitor these control devices to assure that they are operated and maintained in conformance with their designs. Applicable subparts will provide provisions stating how owners or operators using flares shall monitor these control devices.

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(2) Flares shall be steam-assisted, air-assisted, or non-assisted.

(3) Flares shall be operated at all times when emissions may be vented to them.

(4) Flares shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. Test Method 22 in appendix A of part 60 of this chapter shall be used to determine the compliance of flares with the visible emission provisions of this part. The observation period is 2 hours and shall be used according to Method 22.

(5) Flares shall be operated with a flame present at all times. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.

(6) An owner/operator has the choice of adhering to the heat content specifications in paragraph (b)(6)(ii) of this section, and the maximum tip velocity specifications in paragraph (b)(7) or (b)(8) of this section, or adhering to the requirements in paragraph (b)(6)(i) of this section.

(i)(A) Flares shall be used that have a diameter of 3 inches or greater, are non-assisted, have a hydrogen content of 8.0 percent (by volume) or greater, and are designed for and operated with an exit velocity less than 37.2 m/sec (122 ft/sec) and less than the velocity V_{max} , as determined by the following equation:

$$V_{max} = (X_{H2} - K_1) * K_2$$

Where:

V_{max} = Maximum permitted velocity, m/sec.

K_1 = Constant, 6.0 volume-percent hydrogen.

K_2 = Constant, 3.9(m/sec)/volume-percent hydrogen.

X_{H2} = The volume-percent of hydrogen, on a wet basis, as calculated by using the American Society for Testing and Materials (ASTM) Method D1946-77. (Incorporated by reference as specified in §63.14).

(B) The actual exit velocity of a flare shall be determined by the method specified in paragraph (b)(7)(i) of this section.

(ii) Flares shall be used only with the net heating value of the gas being combusted at 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted at 7.45 M/scm (200 Btu/scf) or greater if the flares is non-assisted. The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

$$H_T = K \sum_{i=1}^n C_i H_i$$

Where:

H_T = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25 °C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 °C.

K = Constant =

$$1.740 \times 10^{-7} \left(\frac{1}{ppmv} \right) \left(\frac{\text{g-mole}}{\text{scm}} \right) \left(\frac{\text{MJ}}{\text{kcal}} \right)$$

where the standard temperature for (g-mole/scm) is 20 °C.

C_i = Concentration of sample component i in ppmv on a wet basis, as measured for organics by Test Method 18 and measured for hydrogen and carbon monoxide by American Society for Testing and Materials (ASTM) D1946-77 or 90 (Reapproved 1994) (incorporated by reference as specified in §63.14).

H_i = Net heat of combustion of sample component i, kcal/g-mole at 25 °C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382-76 or 88 or D4809-95 (incorporated by reference as specified in §63.14) if published values are not available or cannot be calculated.

n = Number of sample components.

(7)(i) Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity less than 18.3 m/sec (60 ft/sec), except as provided in paragraphs (b)(7)(ii) and (b)(7)(iii) of this section. The actual exit velocity of a flare shall be determined by dividing by the volumetric flow rate of gas being combusted (in units of emission standard temperature and pressure), as determined by Test Method 2, 2A, 2C, or 2D in appendix A to 40 CFR part 60 of this chapter, as appropriate, by the unobstructed (free) cross-sectional area of the flare tip.

(ii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the method specified in paragraph (b)(7)(i) of this section, equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec), are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).

(iii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the method specified in paragraph (b)(7)(i) of this section, less than the velocity V_{max} , as determined by the method specified in this paragraph, but less than 122 m/sec (400 ft/sec) are allowed. The maximum permitted velocity, V_{max} , for flares complying with this paragraph shall be determined by the following equation:

$$\text{Log}_{10}(V_{max}) = (H_T + 28.8) / 31.7$$

Where:

V_{max} = Maximum permitted velocity, m/sec.

28.8 = Constant

31.7 = Constant

H_T = The net heating value as determined in paragraph (b)(6) of this section.

(8) Air-assisted flares shall be designed and operated with an exit velocity less than the velocity V_{max} . The maximum permitted velocity, V_{max} , for air-assisted flares shall be determined by the following equation:

$$V_{max} = 8.71 + 0.708(H_T)$$

Where:

V_{max} = Maximum permitted velocity, m/sec.

8.71 = Constant

0.708 = Constant

H_T = The net heating value as determined in paragraph (b)(6)(ii) of this section.

(c) *Alternative work practice for monitoring equipment for leaks.* Paragraphs (c), (d), and (e) of this section apply to all equipment for which the applicable subpart requires monitoring with a 40 CFR part 60, appendix A-7, Method 21 monitor, except for closed vent systems, equipment designated as leakless, and equipment identified in the applicable subpart as having no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background. An owner or operator may use an optical gas imaging instrument instead of a 40 CFR part 60, appendix A-7, Method 21 monitor. Requirements in the existing subparts that are specific to the Method 21 instrument do not apply under this section. All other requirements in the applicable subpart that are not addressed in paragraphs (c), (d), and (e) of this section continue to apply. For example, equipment specification requirements, and non-Method 21 instrument recordkeeping and reporting requirements in the applicable subpart continue to apply. The terms defined in paragraphs (c)(1) through (5) of this section have meanings that are specific to the alternative work practice standard in paragraphs (c), (d), and (e) of this section.

(1) *Applicable subpart* means the subpart in 40 CFR parts 60, 61, 63, and 65 that requires monitoring of equipment with a 40 CFR part 60, appendix A-7, Method 21 monitor.

(2) *Equipment* means pumps, valves, pressure relief valves, compressors, open-ended lines, flanges, connectors, and other equipment covered by the applicable subpart that require monitoring with a 40 CFR part 60, appendix A-7, Method 21 monitor.

(3) *Imaging* means making visible emissions that may otherwise be invisible to the naked eye.

(4) *Optical gas imaging instrument* means an instrument that makes visible emissions that may otherwise be invisible to the naked eye.

(5) *Repair* means that equipment is adjusted, or otherwise altered, in order to eliminate a leak.

(6) *Leak* means:

(i) Any emissions imaged by the optical gas instrument;

(ii) Indications of liquids dripping;

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- (iii) Indications by a sensor that a seal or barrier fluid system has failed; or
- (iv) Screening results using a 40 CFR part 60, appendix A-7, Method 21 monitor that exceed the leak definition in the applicable subpart to which the equipment is subject.
- (d) The alternative work practice standard for monitoring equipment for leaks is available to all subparts in 40 CFR parts 60, 61, 63, and 65 that require monitoring of equipment with a 40 CFR part 60, appendix A-7, Method 21 monitor.
- (1) An owner or operator of an affected source subject to 40 CFR parts 60, 61, 63, or 65 can choose to comply with the alternative work practice requirements in paragraph (e) of this section instead of using the 40 CFR part 60, appendix A-7, Method 21 monitor to identify leaking equipment. The owner or operator must document the equipment, process units, and facilities for which the alternative work practice will be used to identify leaks.
- (2) Any leak detected when following the leak survey procedure in paragraph (e)(3) of this section must be identified for repair as required in the applicable subpart.
- (3) If the alternative work practice is used to identify leaks, re-screening after an attempted repair of leaking equipment must be conducted using either the alternative work practice or the 40 CFR part 60, Appendix A-7, Method 21 monitor at the leak definition required in the applicable subparts to which the equipment is subject.
- (4) The schedule for repair is as required in the applicable subpart.
- (5) When this alternative work practice is used for detecting leaking equipment, choose one of the monitoring frequencies listed in Table 1 to subpart A of this part in lieu of the monitoring frequency specified for regulated equipment in the applicable subpart. Reduced monitoring frequencies for good performance are not applicable when using the alternative work practice.
- (6) When this alternative work practice is used for detecting leaking equipment, the following are not applicable for the equipment being monitored:
- Skip period leak detection and repair;
 - Quality improvement plans; or
 - Complying with standards for allowable percentage of valves and pumps to leak.
- (7) When the alternative work practice is used to detect leaking equipment, the regulated equipment in paragraph (d)(1)(i) of this section must also be monitored annually using a 40 CFR part 60, Appendix A-7, Method 21 monitor at the leak definition required in the applicable subpart. The owner or operator may choose the specific monitoring period (for example, first quarter) to conduct the annual monitoring. Subsequent monitoring must be conducted every 12 months from the initial period. Owners or operators must keep records of the annual Method 21 screening results, as specified in paragraph (i)(4)(vii) of this section.
- (e) An owner or operator of an affected source who chooses to use the alternative work practice must comply with the requirements of paragraphs (e)(1) through (e)(5) of this section.
- (1) *Instrument specifications.* The optical gas imaging instrument must comply with the requirements specified in paragraphs (e)(1)(i) and (e)(1)(ii) of this section.
- Provide the operator with an image of the potential leak points for each piece of equipment at both the detection sensitivity level and within the distance used in the daily instrument check described in paragraph (e)(2) of this section. The detection sensitivity level depends upon the frequency at which leak monitoring is to be performed.
 - Provide a date and time stamp for video records of every monitoring event.
- (2) *Daily instrument check.* On a daily basis, and prior to beginning any leak monitoring work, test the optical gas imaging instrument at the mass flow rate determined in paragraph (e)(2)(i) of this section in accordance with the procedure specified in paragraphs (e)(2)(ii) through (e)(2)(iv) of this section for each camera configuration used during monitoring (for example, different lenses used), unless an alternative method to demonstrate daily instrument checks has been approved in accordance with paragraph (e)(2)(v) of this section.
- Calculate the mass flow rate to be used in the daily instrument check by following the procedures in paragraphs (e)(2)(i)(A) and (e)(2)(i)(B) of this section.

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(A) For a specified population of equipment to be imaged by the instrument, determine the piece of equipment in contact with the lowest mass fraction of chemicals that are detectable, within the distance to be used in paragraph (e)(2)(iv)(B) of this section, at or below the standard detection sensitivity level.

(B) Multiply the standard detection sensitivity level, corresponding to the selected monitoring frequency in Table 1 of subpart A of this part, by the mass fraction of detectable chemicals from the stream identified in paragraph (e)(2)(i)(A) of this section to determine the mass flow rate to be used in the daily instrument check, using the following equation.

$$E_{dlc} = (E_{std}) \sum_{i=1}^k x_i$$

Where:

E_{dlc} = Mass flow rate for the daily instrument check, grams per hour

x_i = Mass fraction of detectable chemical(s) i seen by the optical gas imaging instrument, within the distance to be used in paragraph (e)(2)(iv)(B) of this section, at or below the standard detection sensitivity level, E_{std} .

E_{std} = Standard detection sensitivity level from Table 1 to subpart A, grams per hour

k = Total number of detectable chemicals emitted from the leaking equipment and seen by the optical gas imaging instrument.

(i) Start the optical gas imaging instrument according to the manufacturer's instructions, ensuring that all appropriate settings conform to the manufacturer's instructions.

(ii) Use any gas chosen by the user that can be viewed by the optical gas imaging instrument and that has a purity of no less than 98 percent.

(iv) Establish a mass flow rate by using the following procedures:

(A) Provide a source of gas where it will be in the field of view of the optical gas imaging instrument.

(B) Set up the optical gas imaging instrument at a recorded distance from the outlet or leak orifice of the flow meter that will not be exceeded in the actual performance of the leak survey. Do not exceed the operating parameters of the flow meter.

(C) Open the valve on the flow meter to set a flow rate that will create a mass emission rate equal to the mass rate calculated in paragraph (e)(2)(i) of this section while observing the gas flow through the optical gas imaging instrument viewfinder. When an image of the gas emission is seen through the viewfinder at the required emission rate, make a record of the reading on the flow meter.

(v) Repeat the procedures specified in paragraphs (e)(2)(ii) through (e)(2)(iv) of this section for each configuration of the optical gas imaging instrument used during the leak survey.

(vi) To use an alternative method to demonstrate daily instrument checks, apply to the Administrator for approval of the alternative under §§63.177 or §§63.178, whichever is applicable.

(3) *Leak survey procedure.* Operate the optical gas imaging instrument to image every regulated piece of equipment selected for this work practice in accordance with the instrument manufacturer's operating parameters. All emissions imaged by the optical gas imaging instrument are considered to be leaks and are subject to repair. All emissions visible to the naked eye are also considered to be leaks and are subject to repair.

(4) *Recordkeeping.* Keep the records described in paragraphs (e)(4)(i) through (e)(4)(vii) of this section:

(i) The equipment, processes, and facilities for which the owner or operator chooses to use the alternative work practice.

(ii) The detection sensitivity level selected from Table 1 to subpart A of this part for the optical gas imaging instrument.

(iii) The analysis to determine the piece of equipment in contact with the lowest mass fraction of chemicals that are detectable, as specified in paragraph (e)(2)(i)(A) of this section.

(iv) The technical basis for the mass fraction of detectable chemicals used in the equation in paragraph (e)(2)(i)(B) of this section.

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(v) The daily instrument check. Record the distance, per paragraph (e)(2)(iv)(B) of this section, and the flow meter reading, per paragraph (e)(2)(iv)(C) of this section, at which the leak was imaged. Keep a video record of the daily instrument check for each configuration of the optical gas imaging instrument used during the leak survey (for example, the daily instrument check must be conducted for each lens used). The video record must include a time and date stamp for each daily instrument check. The video record must be kept for 5 years.

(vi) *Recordkeeping requirements in the applicable subpart.* A video record must be used to document the leak survey results. The video record must include a time and date stamp for each monitoring event. A video record can be used to meet the recordkeeping requirements of the applicable subparts if each piece of regulated equipment selected for this work practice can be identified in the video record. The video record must be kept for 5 years.

(vii) The results of the annual Method 21 screening required in paragraph (h)(7) of this section. Records must be kept for all regulated equipment specified in paragraph (h)(1) of this section. Records must identify the equipment screened, the screening value measured by Method 21, the time and date of the screening, and calibration information required in the existing applicable subparts.

(5) *Reporting.* Submit the reports required in the applicable subpart. Submit the records of the annual Method 21 screening required in paragraph (h)(7) of this section to the Administrator via e-mail to CCG-AWP@EPA.GOV.

[59 FR 12430, Mar. 16, 1994, as amended at 63 FR 24444, May 4, 1998; 65 FR 62215, Oct. 17, 2000; 67 FR 16605, Apr. 5, 2002; 73 FR 78211, Dec. 22, 2008]

§63.12 State authority and delegations.

(a) The provisions of this part shall not be construed in any manner to preclude any State or political subdivision thereof from—

(1) Adopting and enforcing any standard, limitation, prohibition, or other regulation applicable to an affected source subject to the requirements of this part, provided that such standard, limitation, prohibition, or regulation is not less stringent than any requirement applicable to such source established under this part;

(2) Requiring the owner or operator of an affected source to obtain permits, licenses, or approvals prior to initiating construction, reconstruction, modification, or operation of such source; or

(3) Requiring emission reductions in excess of those specified in subpart D of this part as a condition for granting the extension of compliance authorized by section 112(i)(5) of the Act.

(b)(1) Section 112(i) of the Act directs the Administrator to delegate to each State, when appropriate, the authority to implement and enforce standards and other requirements pursuant to section 112 for stationary sources located in that State. Because of the unique nature of radioactive material, delegation of authority to implement and enforce standards that control radionuclides may require separate approval.

(2) Subpart E of this part establishes procedures consistent with section 112(i) for the approval of State rules or programs to implement and enforce applicable Federal rules promulgated under the authority of section 112. Subpart E also establishes procedures for the review and withdrawal of section 112 implementation and enforcement authorities granted through a section 112(i) approval.

(c) All information required to be submitted to the EPA under this part also shall be submitted to the appropriate State agency of any State to which authority has been delegated under section 112(i) of the Act, provided that each specific delegation may exempt sources from a certain Federal or State reporting requirement. The Administrator may permit all or some of the information to be submitted to the appropriate State agency only, instead of to the EPA and the State agency.

§63.13 Addresses of State air pollution control agencies and EPA Regional Offices.

(a) All requests, reports, applications, submittals, and other communications to the Administrator pursuant to this part shall be submitted to the appropriate Regional Office of the U.S. Environmental Protection Agency indicated in the following list of EPA Regional Offices.

EPA Region IV (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee). Director, Air, Pesticides and Toxics Management Division, Atlanta Federal Center, 61 Forsyth Street, Atlanta, GA 30303-3104.

(b) All information required to be submitted to the Administrator under this part also shall be submitted to the appropriate State agency of any State to which authority has been delegated under section 112(i) of the Act. The owner or

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operator of an affected source may contact the appropriate EPA Regional Office for the mailing addresses for those States whose delegation requests have been approved.

(c) If any State requires a submittal that contains all the information required in an application, notification, request, report, statement, or other communication required in this part, an owner or operator may send the appropriate Regional Office of the EPA a copy of that submittal to satisfy the requirements of this part for that communication.

[59 FR 12430, Mar. 16, 1994, as amended at 63 FR 66061, Dec. 1, 1998; 67 FR 4184, Jan. 29, 2002; 68 FR 32601, May 30, 2003; 68 FR 35792, June 17, 2003; 73 FR 24871, May 6, 2008; 75 FR 69532, Nov. 12, 2010; 76 FR 49673, Aug. 11, 2011; 78 FR 37977, June 25, 2013; 84 FR 34069, July 17, 2019; 84 FR 44230, Aug. 23, 2019]

§63.14 Incorporations by reference.

(a) Certain material is incorporated by reference into this part with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. To enforce any edition other than that specified in this section, the EPA must publish notice of change in the Federal Register and the material must be available to the public. All approved material is available for inspection at the Air and Radiation Docket and Information Center, U.S. EPA, 401 M St. SW., Washington, DC, telephone number 202-566, and is available from the sources listed below. It is also available for inspection at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030 or go to www.archives.gov/federal-register/cfr/ibr-locations.html.

(b) American Conference of Governmental Industrial Hygienists (ACGIH), Customer Service Department, 1330 Kemper Meadow Drive, Cincinnati, Ohio 45240, telephone number (513) 742-2020.

(1) Industrial Ventilation: A Manual of Recommended Practice, 22nd Edition, 1995, Chapter 3, "Local Exhaust Hoods" and Chapter 5, "Exhaust System Design Procedure." IBR approved for §§63.843(b) and 63.844(b).

(2) Industrial Ventilation: A Manual of Recommended Practice, 23rd Edition, 1998, Chapter 3, "Local Exhaust Hoods" and Chapter 5, "Exhaust System Design Procedure." IBR approved for §§63.1503, 63.1506(c), 63.1512(e), Table 2 to subpart RRR, Table 3 to subpart RRR, and appendix A to subpart RRR, and §63.2984(e).

(3) Industrial Ventilation: A Manual of Recommended Practice for Design, 27th Edition, 2010. IBR approved for §§63.1503, 63.1506(c), 63.1512(e), Table 2 to subpart RRR, Table 3 to subpart RRR, and appendix A to subpart RRR, and §63.2984(e).

(c) American Petroleum Institute (API), 1220 L Street NW., Washington, DC 20005.

(1) API Publication 2517, Evaporative Loss from External Floating-Roof Tanks, Third Edition, February 1989, IBR approved for §§63.111, 63.1402, and 63.2406.

(2) API Publication 2518, Evaporative Loss from Fixed-roof Tanks, Second Edition, October 1991, IBR approved for §63.150(g).

(3) API Manual of Petroleum Measurement Specifications (MPMS) Chapter 19.2 (APT MPMS 19.2), Evaporative Loss From Floating-Roof Tanks, First Edition, April 1997, IBR approved for §§63.1251 and 63.12005.

(d) American Society of Heating, Refrigerating, and Air-Conditioning Engineers at 1791 Tullie Circle, NE., Atlanta, GA 30329 orders@ashrae.org.

(1) American Society of Heating, Refrigerating, and Air-Conditioning Engineers Method 52.1, "Gravimetric and Dust-Spot Procedures for Testing Air-Cleaning Devices Used in General Ventilation for Removing Particulate Matter, June 4, 1992," IBR approved for §§63.11173(e) and 63.11516(d).

(2) [Reserved]

(e) American Society of Mechanical Engineers (ASME), Three Park Avenue, New York, NY 10016-5990, Telephone (800) 843-2763, <http://www.asme.org>; also available from HIS, Incorporated, 15 Inverness Way East, Englewood, CO 80112, Telephone (877) 413-5184, <http://global.ihss.com>.

(1) ANSI/ASME PTC 19.10-1981, Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus], issued August 31, 1981, IBR approved for §§63.309(k), 63.457(k), 63.772(c) and (h), 63.865(b), 63.1282(d) and (p), 63.1625(b), 63.3166(a), 63.3360(c), 63.3545(a), 63.3555(a), 63.4166(a), 63.4362(a), 63.4766(a), 63.4965(a), 63.5160(d), table 4 to subpart UUUUU, 63.9307(c), 63.9323(a), 63.11148(e), 63.11155(c), 63.11162(f), 63.11163(g), 63.11410(j), 63.11551(a), 63.11646(a), and 63.11945, table 5 to subpart DDDDD, table 4 to subpart JJJJJ, table 4 to subpart KKKKK, tables 4 and 5 of subpart UUUUU, table 1 to subpart ZZZZZ, and table 4 to subpart JJJJJ.

(2) [Reserved]

(f) The Association of Florida Phosphate Chemists, P.O. Box 1645, Bartow, Florida 33830.

(1) Book of Methods Used and Adopted By The Association of Florida Phosphate Chemists, Seventh Edition 1991:

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- (i) Section IX, Methods of Analysis for Phosphate Rock, No. 1 Preparation of Sample, IFR approved for §§63.606(f), §63.626(f).
- (ii) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus-P₂O₅ or Ca₃(PO₄)₂, Method A—Volumetric Method, IFR approved for §§63.606(f), §63.626(f).
- (iii) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus-P₂O₅ or Ca₃(PO₄)₂, Method B—Gravimetric Quimociae Method, IFR approved for §§63.606(f), §63.626(f).
- (iv) Section IX, Methods of Analysis For Phosphate Rock, No. 3 Phosphorus-P₂O₅ or Ca₃(PO₄)₂, Method C—Spectrophotometric Method, IFR approved for §§63.606(f), §63.626(f).
- (v) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P₂O₅, Method A—Volumetric Method, IFR approved for §§63.606(f), §63.626(f), and (g).
- (vi) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P₂O₅, Method B—Gravimetric Quimociae Method, IFR approved for §§63.606(f), §63.626(f), and (g).
- (vii) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P₂O₅, Method C—Spectrophotometric Method, IFR approved for §§63.606(f), §63.626(f), and (g).
- (2) [Reserved]
- (g) Association of Official Analytical Chemists (AOAC) International, Customer Services, Suite 400, 2200 Wilson Boulevard, Arlington, Virginia 22201-3301, Telephone (703) 522-3032, Fax (703) 522-5468.
- (1) AOAC Official Method 929.01 Sampling of Solid Fertilizers, Sixteenth edition, 1995, IFR approved for §63.626(g).
- (2) AOAC Official Method 929.02 Preparation of Fertilizer Sample, Sixteenth edition, 1995, IFR approved for §63.626(g).
- (3) AOAC Official Method 957.02 Phosphorus (Total) in Fertilizers, Preparation of Sample Solution, Sixteenth edition, 1995, IFR approved for §63.626(g).
- (4) AOAC Official Method 958.01 Phosphorus (Total) in Fertilizers, Spectrophotometric Molybdovanadophosphate Method, Sixteenth edition, 1995, IFR approved for §63.626(g).
- (5) AOAC Official Method 962.02 Phosphorus (Total) in Fertilizers, Gravimetric Quinolinium Molybdophosphate Method, Sixteenth edition, 1995, IFR approved for §63.626(g).
- (6) AOAC Official Method 969.02 Phosphorus (Total) in Fertilizers, Alkalimetric Quinolinium Molybdophosphate Method, Sixteenth edition, 1995, IFR approved for §63.626(g).
- (7) AOAC Official Method 978.01 Phosphorus (Total) in Fertilizers, Automated Method, Sixteenth edition, 1995, IFR approved for §63.626(g).
- (h) ASTM International, 100 Barr Harbor Drive, Post Office Box C700, West Conshohocken, PA 19428-2959, Telephone (610) 832-9585, <http://www.astm.org>; also available from ProQuest, 789 East Eisenhower Parkway, Ann Arbor, MI 48106-1346, Telephone (734) 761-4700, <http://www.proquest.com>.
- (1) ASTM D95-05 (Reapproved 2010), Standard Test Method for Water in Petroleum Products and Bituminous Materials by Distillation, approved May 1, 2010, IFR approved for §63.10005(f) and table 6 to subpart DDDDD.
- (2) ASTM D240-09 Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter, approved July 1, 2009, IFR approved for table 6 to subpart DDDDD.
- (3) ASTM Method D388-05, Standard Classification of Coals by Rank, approved September 15, 2005, IFR approved for §§63.7575, 63.10042, and 63.11237.
- (4) ASTM Method D396-10, Standard Specification for Fuel Oils, including Appendix X1, approved October 1, 2010, IFR approved for §63.10042.
- (5) ASTM D396-10, Standard Specification for Fuel Oils, approved October 1, 2010, IFR approved for §§63.7575 and 63.11237.
- (6) ASTM D523-89, Standard Test Method for Specular Gloss, IFR approved for §63.782.
- (7) ASTM D975-11b, Standard Specification for Diesel Fuel Oils, approved December 1, 2011, IFR approved for §63.7575.
- (8) ASTM D1193-77, Standard Specification for Reagent Water, IFR approved for appendix A to part 63: Method 306, Sections 7.1.1 and 7.4.2.

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- (9) ASTM D1193-91, Standard Specification for Reagent Water, IFR approved for appendix A to part 63: Method 306, Sections 7.1.1 and 7.4.2.
- (10) ASTM D1331-89, Standard Test Methods for Surface and Interfacial Tension of Solutions of Surface Active Agents, IFR approved for appendix A to part 63: Method 306B, Sections 6.2, 11.1, and 12.2.2.
- (11) ASTM D1475-90, Standard Test Method for Density of Paint, Varnish Lacquer, and Related Products, IFR approved for appendix A to subpart II.
- (12) ASTM D1475-98 (Reapproved 2003), "Standard Test Method for Density of Liquid Coatings, Inks, and Related Products," IFR approved for §§63.3151(b), 63.3941(b) and (c), 63.3951(c), 63.4141(b) and (c), and 63.4551(c).
- (13) ASTM D1475-13, Standard Test Method for Density of Liquid Coatings, Inks, and Related Products, approved November 1, 2013, IFR approved for §§63.4141(b) and (c), 63.4741(b) and (c), 63.4751(c), and 63.4941(b) and (c).
- (14) ASTM Method D1835-05, Standard Specification for Liquefied Petroleum (LP) Gases, approved April 1, 2005, IFR approved for §§63.7575 and 63.11237.
- (15) ASTM D1945-03 (Reapproved 2010), Standard Test Method for Analysis of Natural Gas by Gas Chromatography, Approved January 1, 2010, IFR approved for §§63.670(j), 63.772(h), and 63.1282(g).
- (16) ASTM D1945-14, Standard Test Method for Analysis of Natural Gas by Gas Chromatography, Approved November 1, 2014, IFR approved for §63.670(j).
- (17) ASTM D1946-77, Standard Method for Analysis of Reformed Gas by Gas Chromatography, IFR approved for §63.11(b).
- (18) ASTM D1946-90 (Reapproved 1994), Standard Method for Analysis of Reformed Gas by Gas Chromatography, IFR approved for §§63.11(b) and 63.1412.
- (19) ASTM D2013/D2013M-09, Standard Practice for Preparing Coal Samples for Analysis, (Approved November 1, 2009), IFR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.
- (20) ASTM D2099-00, Standard Test Method for Dynamic Water Resistance of Shoe Upper Leather by the Mæser Water Penetration Tester, IFR approved for §63.5350.
- (21) ASTM D2111-10 (Reapproved 2015), Standard Test Methods for Specific Gravity and Density of Halogenated Organic Solvents and Their Mixtures, approved June 1, 2015, IFR approved for §§63.4141(b) and (c) and 63.4741(a).
- (22) ASTM D2216-05, Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass, IFR approved for the definition of "Free organic liquids" in §63.10692.
- (23) ASTM D2234/D2234M-10, Standard Practice for Collection of a Gross Sample of Coal, approved January 1, 2010, IFR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.
- (24) ASTM D2369-93, Standard Test Method for Volatile Content of Coatings, IFR approved for appendix A to subpart II.
- (25) ASTM D2369-95, Standard Test Method for Volatile Content of Coatings, IFR approved for appendix A to subpart II.
- (26) ASTM D2369-10 (Reapproved 2015)e, Standard Test Method for Volatile Content of Coatings, approved June 1, 2015, IFR approved for §§63.4141(a) and (b), 63.4161(h), 63.4321(e), 63.4341(e), 63.4351(d), 63.4741(a), 63.4941(a) and (b), and 63.4961(j).
- (27) ASTM D2382-76, Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High-Precision Method), IFR approved for §63.11(b).
- (28) ASTM D2382-88, Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High-Precision Method), IFR approved for §63.11(b).
- (29) ASTM D2697-86 (Reapproved 1998), Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings, IFR approved for §§63.3161(f), 63.3521(b), 63.3941(b), 63.4141(b), 63.4741(b), 63.4941(b), and 63.5160(c).
- (30) ASTM D2697-03 (Reapproved 2014), Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings, approved July 1, 2014, IFR approved for §§63.4141(b), 63.4741(a) and (b), and 63.4941(b).
- (31) ASTM D2879-83, Standard Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, IFR approved for §§63.111, 63.1402, 63.2406, and 63.12005.
- (32) ASTM D2879-96, Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, (Approved 1996), IFR approved for §§63.111, 63.2406, and 63.12005.
- (33) ASTM D2908-74, Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, Approved June 27, 1974, IFR approved for §63.1329(c).

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- (34) ASTM D2908-91, Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, Approved December 15, 1991, IFR approved for §63.1329(c).
- (35) ASTM D2908-91 (Reapproved 2001), Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, Approved December 15, 1991, IFR approved for §63.1329(c).
- (36) ASTM D2908-91 (Reapproved 2005), Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, Approved December 1, 2005, IFR approved for §63.1329(c).
- (37) ASTM D2908-91 (Reapproved 2011), Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, Approved May 1, 2011, IFR approved for §63.1329(c).
- (38) ASTM D2986-95A, "Standard Practice for Evaluation of Air Assay Media by the Monodisperse DOP (Diocetyl Phthalate) Smoke Test," approved September 10, 1995, IFR approved for section 7.1.1 of Method 315 in appendix A to this part.
- (39) ASTM D3173-03 (Reapproved 2008), Standard Test Method for Moisture in the Analysis Sample of Coal and Coke, (Approved February 1, 2008), IFR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJJ.
- (40) ASTM D3257-93, Standard Test Methods for Aromatics in Mineral Spirits by Gas Chromatography, IFR approved for §63.786(b).
- (41) ASTM D3370-76, Standard Practices for Sampling Water, Approved August 27, 1976, IFR approved for §63.1329(c).
- (42) ASTM D3370-95a, Standard Practices for Sampling Water from Closed Conduits, Approved September 10, 1995, IFR approved for §63.1329(c).
- (43) ASTM D3370-07, Standard Practices for Sampling Water from Closed Conduits, Approved December 1, 2007, IFR approved for §63.1329(c).
- (44) ASTM D3370-08, Standard Practices for Sampling Water from Closed Conduits, Approved October 1, 2008, IFR approved for §63.1329(c).
- (45) ASTM D3370-10, Standard Practices for Sampling Water from Closed Conduits, Approved December 1, 2010, IFR approved for §63.1329(c).
- (46) ASTM D3588-98 (Reapproved 2003), Standard Practice for Calculating Heat Value, Compressibility Factor, and Relative Density of Gaseous Fuels, (Approved May 10, 2003), IFR approved for §§63.772(h) and 63.1282(g).
- (47) ASTM D3695-88, Standard Test Method for Volatile Alcohols in Water by Direct Aqueous-Injection Gas Chromatography, IFR approved for §63.365(c).
- (48) ASTM D3792-91, Standard Method for Water Content of Water-Reducible Paints by Direct Injection into a Gas Chromatograph, IFR approved for appendix A to subpart II.
- (49) ASTM D3912-80, Standard Test Method for Chemical Resistance of Coatings Used in Light-Water Nuclear Power Plants, IFR approved for §63.782.
- (50) ASTM D4006-11, Standard Test Method for Water in Crude Oil by Distillation, including Annex A1 and Appendix X1, (Approved June 1, 2011), IFR approved for §63.10005(i) and table 6 to subpart DDDDD.
- (51) ASTM D4017-81, Standard Test Method for Water in Paints and Paint Materials by the Karl Fischer Titration Method, IFR approved for appendix A to subpart II.
- (52) ASTM D4017-90, Standard Test Method for Water in Paints and Paint Materials by the Karl Fischer Titration Method, IFR approved for appendix A to subpart II.
- (53) ASTM D4017-96a, Standard Test Method for Water in Paints and Paint Materials by the Karl Fischer Titration Method, IFR approved for appendix A to subpart II.
- (54) ASTM D4057-06 (Reapproved 2011), Standard Practice for Manual Sampling of Petroleum and Petroleum Products, including Annex A1, (Approved June 1, 2011), IFR approved for §63.10005(i) and table 6 to subpart DDDDD.
- (55) ASTM D4082-89, Standard Test Method for Effects of Gamma Radiation on Coatings for Use in Light-Water Nuclear Power Plants, IFR approved for §63.782.
- (56) ASTM D4084-07, Standard Test Method for Analysis of Hydrogen Sulfide in Gaseous Fuels (Lead Acetate Reaction Rate Method), (Approved June 1, 2007), IFR approved for table 6 to subpart DDDDD.
- (57) ASTM D4177-95 (Reapproved 2010), Standard Practice for Automatic Sampling of Petroleum and Petroleum Products, including Annexes A1 through A6 and Appendices X1 and X2, (Approved May 1, 2010), IFR approved for §63.10005(i) and table 6 to subpart DDDDD.

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- (58) ASTM D4208-02 (Reapproved 2007), Standard Test Method for Total Chlorine in Coal by the Oxygen Bomb Combustion/Ion Selective Electrode Method, approved May 1, 2007, IFR approved for table 6 to subpart DDDDD.
- (59) ASTM D4239-14e1, "Standard Test Method for Sulfur in the Analysis Sample of Coal and Coke Using High-Temperature Tube Furnace Combustion," approved March 1, 2014, IFR approved for §63.849(f).
- (60) ASTM D4256-89, Standard Test Method for Determination of the Decontaminability of Coatings Used in Light-Water Nuclear Power Plants, IFR approved for §63.782.
- (61) ASTM D4256-89 (Reapproved 94), Standard Test Method for Determination of the Decontaminability of Coatings Used in Light-Water Nuclear Power Plants, IFR approved for §63.782.
- (62) ASTM D4606-03 (Reapproved 2007), Standard Test Method for Determination of Arsenic and Selenium in Coal by the Hydride Generation/Atomic Absorption Method, (Approved October 1, 2007), IFR approved for table 6 to subpart DDDDD.
- (63) ASTM D4809-95, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter (Precision Method), IFR approved for §63.11(b).
- (64) ASTM D4840-99 (Reapproved 2018)e, Standard Guide for Sampling Chain-of-Custody Procedures, approved August 15, 2018, IFR approved for appendix A to part 63.
- (65) ASTM D4891-89 (Reapproved 2006), Standard Test Method for Heating Value of Gases in Natural Gas Range by Stoichiometric Combustion, (Approved June 1, 2006), IFR approved for §§63.772(h) and 63.1282(g).
- (66) ASTM D5066-91 (Reapproved 2001), Standard Test Method for Determination of the Transfer Efficiency Under Production Conditions for Spray Application of Automotive Paints-Weight Basis, IFR approved for §63.3161(g).
- (67) ASTM D5087-02, Standard Test Method for Determining Amount of Volatile Organic Compound (VOC) Released from Solventborne Automotive Coatings and Available for Removal in a VOC Control Device (Abatement), IFR approved for §63.3165(c) and appendix A to subpart IIII.
- (68) ASTM D5192-09, Standard Practice for Collection of Coal Samples from Core, (Approved June 1, 2009), IFR approved for table 6 to subpart DDDDD.
- (69) ASTM D5198-09, Standard Practice for Nitric Acid Digestion of Solid Waste, (Approved February 1, 2009), IFR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJJ.
- (70) ASTM D5228-92, Standard Test Method for Determination of Bulane Working Capacity of Activated Carbon, (Reapproved 2005), IFR approved for §63.11092(b).
- (71) ASTM D5291-02, Standard Test Methods for Instrumental Determination of Carbon, Hydrogen, and Nitrogen in Petroleum Products and Lubricants, IFR approved for appendix A to subpart MMMM.
- (72) ASTM D5790-95, Standard Test Method for Measurement of Purgeable Organic Compounds in Water by Capillary Column Gas Chromatography/Mass Spectrometry, IFR approved for Table 4 to subpart UUUU.
- (73) ASTM D5864-11, Standard Test Method for Determining Aerobic Aquatic Biodegradation of Lubricants or Their Components, (Approved March 1, 2011), IFR approved for table 6 to subpart DDDDD.
- (74) ASTM D5865-10a, Standard Test Method for Gross Calorific Value of Coal and Coke, (Approved May 1, 2010), IFR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJJ.
- (75) ASTM D5954-98 (Reapproved 2006), Test Method for Mercury Sampling and Measurement in Natural Gas by Atomic Absorption Spectroscopy, (Approved December 1, 2006), IFR approved for table 6 to subpart DDDDD.
- (76) ASTM D5965-02, Standard Test Methods for Specific Gravity of Coating Powders, IFR approved for §§63.3151(b) and 63.3951(c).
- (77) ASTM D6053-00, Standard Test Method for Determination of Volatile Organic Compound (VOC) Content of Electrical Insulating Varnishes, IFR approved for appendix A to subpart MMMM.
- (78) ASTM D6093-97 (Reapproved 2003), Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer, IFR approved for §§63.3161, 63.3521, 63.3941, and 63.5160(c).
- (79) ASTM D6093-97 (Reapproved 2016), Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer, Approved December 1, 2016, IFR approved for §§63.4141(b), 63.4741(a) and (b), and 63.4941(b).
- (80) ASTM D6196-03 (Reapproved 2009), Standard Practice for Selection of Sorbents, Sampling, and Thermal Desorption Analysis Procedures for Volatile Organic Compounds in Air, Approved March 1, 2009, IFR approved for appendix A to this part: Method 325A and Method 325B.

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- (81) ASTM D6266-00a, Test Method for Determining the Amount of Volatile Organic Compound (VOC) Released from Waterborne Automotive Coatings and Available for Removal in a VOC Control Device (Abatement), IFR approved for §63.3165(e).
- (82) ASTM D6323-98 (Reapproved 2003), Standard Guide for Laboratory Subsampling of Media Related to Waste Management Activities, (Approved August 10, 2003), IFR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.
- (83) ASTM D6348-03, Standard Test Method for Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform Infrared (FTIR) Spectroscopy, IFR approved for §§63.457(b) and 63.1349, table 4 to subpart DDDD, table 4 to subpart ZZZZ, and table 8 to subpart HHHHHH.
- (84) ASTM D6348-03 (Reapproved 2010), Standard Test Method for Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform Infrared (FTIR) Spectroscopy, including Annexes A1 through A8, Approved October 1, 2010, IFR approved for §§63.1571(a), 63.4751(i), 63.4752(e), 63.4766(b), tables 4 and 5 to subpart JJJJJ, tables 4 and 6 to subpart KKKKK, tables 1, 2, and 5 to subpart UUUUU and appendix B to subpart UUUUU.
- (85) ASTM D6348-12e1, Standard Test Method for Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform Infrared (FTIR) Spectroscopy, Approved February 1, 2012, IFR approved for §63.1571(a).
- (86) ASTM D6350-98 (Reapproved 2003), Standard Test Method for Mercury Sampling and Analysis in Natural Gas by Atomic Fluorescence Spectroscopy, (Approved May 10, 2003), IFR approved for table 6 to subpart DDDDD.
- (87) ASTM D6357-11, Test Methods for Determination of Trace Elements in Coal, Coke, and Combustion Residues from Coal Utilization Processes by Inductively Coupled Plasma Atomic Emission Spectrometry, (Approved April 1, 2011), IFR approved for table 6 to subpart DDDDD.
- (88) ASTM D6376-10, "Standard Test Method for Determination of Trace Metals in Petroleum Coke by Wavelength Dispersive X-Ray Fluorescence Spectroscopy," Approved July 1, 2010, IFR approved for §63.849(f).
- (89) ASTM D6420-99, Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry, IFR approved for §§63.5799, 63.5850, and Table 4 of Subpart UUUU.
- (90) ASTM D6420-99 (Reapproved 2004), Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry, (Approved October 1, 2004), IFR approved for §§63.457(b), 63.485(g), 60.485(a)(i), 63.772(a), 63.772(e), 63.1282(a) and (d), 63.2351(b), and 63.2354(b), and table 8 to subpart HHHHHH.
- (91) ASTM D6420-99 (Reapproved 2010), Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry, Approved October 1, 2010, IFR approved for §63.670(j) and appendix A to this part: Method 325B.
- (92) ASTM D6522-00, Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers, IFR approved for §63.9307(c).
- (93) ASTM D6522-00 (Reapproved 2005), Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers, (Approved October 1, 2005), IFR approved for table 4 to subpart ZZZZ, table 5 to subpart DDDDD, table 4 to subpart JJJJJ, and §§63.772(e) and (h) and 63.1282(d) and (g).
- (94) ASTM D6721-01 (Reapproved 2006), Standard Test Method for Determination of Chlorine in Coal by Oxidative Hydrolysis Microcoulometry, (Approved April 1, 2006), IFR approved for table 6 to subpart DDDDD.
- (95) ASTM D6722-01 (Reapproved 2006), Standard Test Method for Total Mercury in Coal and Coal Combustion Residues by the Direct Combustion Analysis, (Approved April 1, 2006), IFR approved for Table 6 to subpart DDDDD and Table 5 to subpart JJJJJ.
- (96) ASTM D6735-01 (Reapproved 2009), Standard Test Method for Measurement of Gaseous Chlorides and Fluorides from Mineral Calcining Exhaust Sources—Impinger Method, IFR approved for tables 4 and 5 to subpart JJJJJ and tables 4 and 6 to subpart KKKKK.
- (97) ASTM D6751-11b, Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels, (Approved July 15, 2011), IFR approved for §§63.7575 and 63.11237.
- (98) ASTM D6784-02 (Reapproved 2008), Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method), (Approved April 1, 2008), IFR approved for §§63.1164(a), 63.11647(a) and (d), tables 1, 2, 5, 11, 12, and 13 to subpart DDDDD, tables 4 and 5 to subpart JJJJJ, tables 4 and 6 to subpart KKKKK, table 4 to subpart JJJJJ, table 5 to subpart UUUUU, and appendix A to subpart UUUUU.
- (99) ASTM D6883-04, Standard Practice for Manual Sampling of Stationary Coal from Railroad Cars, Barges, Trucks, or Stockpiles, (Approved June 1, 2004), IFR approved for table 6 to subpart DDDDD.
- (100) ASTM D7430-11a, Standard Practice for Mechanical Sampling of Coal, (Approved October 1, 2011), IFR approved for table 6 to subpart DDDDD.

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- (101) ASTM D7520-13, Standard Test Method for Determining the Opacity of a Plume in an Outdoor Ambient Atmosphere, approved December 1, 2013, IFR approved for §§63.1510(f), 63.1511(d), 63.1512(a), 63.1517(b) and 63.1625(b).
- (102) ASTM D7520-16, Standard Test Method for Determining the Opacity of a Plume in the Outdoor Ambient Atmosphere, approved April 1, 2016, IFR approved for §§63.1625(b).
- (103) ASTM E145-94 (Reapproved 2001), Standard Specification for Gravity-Convection and Forced-Ventilation Ovens, IFR approved for appendix A to subpart PPPP.
- (104) ASTM E180-93, Standard Practice for Determining the Precision of ASTM Methods for Analysis and Testing of Industrial Chemicals, IFR approved for §63.786(b).
- (105) ASTM E260-91, General Practice for Packed Column Gas Chromatography, IFR approved for §§63.750(b) and 63.786(b).
- (106) ASTM E260-96, General Practice for Packed Column Gas Chromatography, IFR approved for §§63.750(b) and 63.786(b).
- (107) ASTM E515-95 (Reapproved 2000), Standard Test Method for Leaks Using Bubble Emission Techniques, IFR approved for §63.425(i).
- (108) ASTM E711-87 (Reapproved 2004), Standard Test Method for Gross Calorific Value of Refuse-Derived Fuel by the Bomb Calorimeter, (Approved August 28, 1987), IFR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.
- (109) ASTM E776-87 (Reapproved 2009), Standard Test Method for Forms of Chlorine in Refuse-Derived Fuel, (Approved July 1, 2009), IFR approved for table 6 to subpart DDDDD.
- (110) ASTM E871-82 (Reapproved 2006), Standard Test Method for Moisture Analysis of Particulate Wood Fuels, (Approved November 1, 2006), IFR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.
- (111) ASTM UOP539-12, Refinery Gas Analysis by GC, Copyright 2012 (to UOP), IFR approved for §63.670(j).
- (i) Bay Area Air Quality Management District (BAAQMD), 939 Ellis Street, San Francisco, California 94109, <http://www.arb.ca.gov/DRDB/BA/CURHTML/ST/430.pdf>.
- (1) "BAAQMD Source Test Procedure ST-30—Static Pressure Integrity Test, Underground Storage Tanks," adopted November 30, 1983, and amended December 21, 1994, IFR approved for §63.11120(a).
- (2) [Reserved]
- (j) British Standards Institute, 389 Chiswick High Road, London W4 4AL, United Kingdom.
- (1) BS EN 1593:1999, Non-destructive Testing: Leak Testing—Bubble Emission Techniques, IFR approved for §63.425(i).
- (2) BS EN 14662-4:2005, Ambient air quality standard method for the measurement of benzene concentrations—Part 4: Diffusive sampling followed by thermal desorption and gas chromatography, Published June 27, 2005, IFR approved for appendix A to this part: Method 325A and Method 325B.
- (k) California Air Resources Board (CARB), 1001 I Street, P.O. Box 2815, Sacramento, CA 95812-2815, Telephone (916) 327-0900, <http://www.arb.ca.gov/>.
- (1) Method 428, "Determination Of Polychlorinated Dibenzo-P-Dioxin (PCDD), Polychlorinated Dibenzofuran (PCDF), and Polychlorinated Biphenyl Emissions from Stationary Sources," amended September 12, 1990, IFR approved for §63.849(a)(13) and (14).
- (2) Method 429, Determination of Polycyclic Aromatic Hydrocarbon (PAH) Emissions from Stationary Sources, Adopted September 12, 1989, Amended July 28, 1997, IFR approved for §63.1625(b).
- (3) California Air Resources Board Vapor Recovery Test Procedure TP-201.1—"Volumetric Efficiency for Phase I Vapor Recovery Systems," adopted April 12, 1996, and amended February 1, 2001 and October 8, 2003, IFR approved for §63.11120(b).
- (4) California Air Resources Board Vapor Recovery Test Procedure TP-201.1E—"Leak Rate and Cracking Pressure of Pressure/Vacuum Vent Valves," adopted October 8, 2003, IFR approved for §63.11120(a).
- (5) California Air Resources Board Vapor Recovery Test Procedure TP-201.3—"Determination of 2-Inch WC Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities," adopted April 12, 1996 and amended March 17, 1999, IFR approved for §63.11120(a).
- (l) Composite Panel Association, 19465 Deerfield Avenue, Suite 306, Leesburg, VA 20176, Telephone (703)724-1128, and www.compositepanel.org.
- (1) ANSI A135.4-2012, Basic Hardboard, approved June 8, 2012, IFR approved for §63.4781

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- (2) [Reserved]
- (m) Environmental Protection Agency, Air and Radiation Docket and Information Center, 1200 Pennsylvania Avenue NW., Washington, DC 20460, telephone number (202) 566-1745.
- (1) California Regulatory Requirements Applicable to the Air Toxics Program, November 16, 2010, TBR approved for §63.99(a).
- (2) New Jersey's Toxic Catastrophe Prevention Act Program, (July 20, 1998), TBR approved for §63.99(a).
- (3) Delaware Department of Natural Resources and Environmental Control, Division of Air and Waste Management, Accidental Release Prevention Regulation, sections 1 through 5 and sections 7 through 14, effective January 11, 1999, TBR approved for §63.99(a).
- (4) State of Delaware Regulations Governing the Control of Air Pollution (October 2000), TBR approved for §63.99(a).
- (5) Massachusetts Department of Environmental Protection regulations at 310 CMR 7.26(10)-(16), Air Pollution Control, effective as of September 5, 2008, corrected March 6, 2009, and 310 CMR 70.00, Environmental Results Program Certification, effective as of December 28, 2007, TBR approved for §63.99(a).
- (6)(i) New Hampshire Regulations at Env-Sw 2100, Management and Control of Asbestos Disposal Sites Not Operated after July 9, 1981, effective February 16, 2010 (including a letter from Thomas S. Burack, Commissioner, Department of Environmental Services, State of New Hampshire, to Carol J. Holahan, Director, Office of Legislative Services, dated February 12, 2010, certifying that the enclosed rule, Env-Sw 2100, is the official version of this rule), TBR approved for §63.99(a).
- (ii) New Hampshire Code of Administrative Rules: Chapter Env-A 1800, Asbestos Management and Control, effective as of May 5, 2017 (certified with June 23, 2017 letter from Clark B. Freise, Assistant Commissioner, Department of Environmental Services, State of New Hampshire), as follows: Revision Notes #1 and #2; Part Env-A 1801-1807, excluding Env-A 1801.02(c), Env-A 1801.07, Env-A 1802.02, Env-A 1802.04, Env-A 1802.07-1802.09, Env-A 1802.13, Env-A 1802 15-1802.17, Env-A 1802.25, Env-A 1802.31, Env-A 1802.37, Env-A 1802.40, Env-A 1802.44, and Env-A 1803.05-1803.09; and Appendices B, C, and D; TBR approved for §63.99(a).
- (7) Maine Department of Environmental Protection regulations at Chapter 125, Perchloroethylene Dry Cleaner Regulation, effective as of June 2, 1991, last amended on June 24, 2009, TBR approved for §63.99(a).
- (8) California South Coast Air Quality Management District's "Spray Equipment Transfer Efficiency Test Procedure for Equipment User, May 24, 1989," TBR approved for §§63.11173(e) and 63.11516(d).
- (9) California South Coast Air Quality Management District's "Guidelines for Demonstrating Equivalency with District Approved Transfer Efficient Spray Guns, September 26, 2002," Revision 0, TBR approved for §§63.11173(e) and 63.11516(d).
- (10) Rhode Island Department of Environmental Management regulations at Air Pollution Control Regulation No. 36, Control of Emissions from Organic Solvent Cleaning, effective April 8, 1996, last amended October 9, 2008, TBR approved for §63.99(a).
- (11) Rhode Island Air Pollution Control, General Definitions Regulation, effective July 19, 2007, last amended October 9, 2008, TBR approved for §63.99(a).
- (12) Alaska Statute 42.45.045. Renewable energy grant fund and recommendation program, available at <http://www.legis.state.ak.us/basis/folio.asp>, TBR approved for §63.6675.
- (13) Vermont Air Pollution Control Regulations, Chapter 5, Air Pollution Control, section 5-253.11, Perchloroethylene Dry Cleaning, effective as of December 15, 2016. Incorporation by reference approved for §63.99(a).
- (n) U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue NW., Washington, DC 20460, (202) 272-0167, <http://www.epa.gov>.
- (1) EPA-453/R-01-005, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Integrated Iron and Steel Plants—Background Information for Proposed Standards, Final Report, January 2001, TBR approved for §63.7491(g).
- (2) EPA-454/B-08-002, Office of Air Quality Planning and Standards (OAQPS), Quality Assurance Handbook for Air Pollution Measurement Systems, Volume IV: Meteorological Measurements, Version 2.0 (Final), March 24, 2008, TBR approved for §63.658(d) and appendix A to this part: Method 325A.
- (3) EPA-454/R-98-015, Office of Air Quality Planning and Standards (OAQPS), Fabric Filter Bag Leak Detection Guidance, September 1997, <https://nepis.epa.gov/Exec/QueryPDF.cgi?Dockey=2000D5T6.PDF>, TBR approved for §§63.548(e), 63.864(e), 63.7525(j), 63.8450(e), 63.8600(e), and 63.11224(f).
- (4) EPA-454/R-99-005, Office of Air Quality Planning and Standards (OAQPS), Meteorological Monitoring Guidance for Regulatory Modeling Applications, February 2000, TBR approved for appendix A to this part: Method 325A.
- (5) EPA/600/R-12/531, EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards, May 2012, TBR approved for §63.2163(b).

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- (6) EPA-625/3-89-016, Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-Dioxins and -Dibenzofurans (CDDs and CDFs) and 1989 Update, March 1989, TBR approved for §63.1513(d).
- (7) SW-846-3020A, Acid Digestion of Aqueous Samples And Extracts For Total Metals For Analysis By GFAA Spectroscopy, Revision 1, July 1992, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, TBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJJ.
- (8) SW-846-3050B, Acid Digestion of Sediments, Sludges, and Soils, Revision 2, December 1996, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, TBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJJ.
- (9) SW-846-7470A, Mercury In Liquid Waste (Manual Cold-Vapor Technique), Revision 1, September 1994, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, TBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJJ.
- (10) SW-846-7471B, Mercury In Solid Or Semisolid Waste (Manual Cold-Vapor Technique), Revision 2, February 2007, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, TBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJJ.
- (11) SW-846-8015C, Nonhalogenated Organics by Gas Chromatography, Revision 3, February 2007, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, TBR approved for §§63.11960, 63.11980, and table 10 to subpart HHHHHHHH.
- (12) SW-846-8260B, Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS), Revision 2, December 1996, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, TBR approved for §§63.11960, 63.11980, and table 10 to subpart HHHHHHHH.
- (13) SW-846-8270D, Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS), Revision 4, February 2007, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, TBR approved for §§63.11960, 63.11980, and table 10 to subpart HHHHHHHH.
- (14) SW-846-8315A, Determination of Carbonyl Compounds by High Performance Liquid Chromatography (HPLC), Revision 1, December 1996, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, TBR approved for §§63.11960 and 63.11980, and table 10 to subpart HHHHHHHH.
- (15) SW-846-5050, Bomb Preparation Method for Solid Waste, Revision 0, September 1994, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition TBR approved for table 6 to subpart DDDDD.
- (16) SW-846-6010C, Inductively Coupled Plasma-Atomic Emission Spectrometry, Revision 3, February 2007, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, TBR approved for table 6 to subpart DDDDD.
- (17) SW-846-6020A, Inductively Coupled Plasma-Mass Spectrometry, Revision 1, February 2007, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, TBR approved for table 6 to subpart DDDDD.
- (18) SW-846-7060A, Arsenic (Atomic Absorption, Furnace Technique), Revision 1, September 1994, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, TBR approved for table 6 to subpart DDDDD.
- (19) SW-846-7740, Selenium (Atomic Absorption, Furnace Technique), Revision 0, September 1986, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, TBR approved for table 6 to subpart DDDDD.
- (20) SW-846-9056, Determination of Inorganic Anions by Ion Chromatography, Revision 1, February 2007, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, TBR approved for table 6 to subpart DDDDD.
- (21) SW-846-9076, Test Method for Total Chlorine in New and Used Petroleum Products by Oxidative Combustion and Microcoulometry, Revision 0, September 1994, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, TBR approved for table 6 to subpart DDDDD.
- (22) SW-846-9250, Chloride (Colorimetric, Automated Ferricyanide AA), Revision 0, September 1986, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, TBR approved for table 6 to subpart DDDDD.
- (23) Method 200.8, Determination of Trace Elements in Waters and Wastes by Inductively Coupled Plasma—Mass Spectrometry, Revision 5.4, 1994, TBR approved for table 6 to subpart DDDDD.
- (24) Method 1631 Revision E, Mercury in Water by Oxidation, Purge and Trap, and Cold Vapor Atomic Absorption Fluorescence Spectrometry, Revision E, EPA-821-R-02-019, August 2002, TBR approved for table 6 to subpart DDDDD.

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- (o) International Standards Organization (ISO), 1, ch. de la Voie-Creuse, Case postale 56, CH-1211 Geneva 20, Switzerland, + 41 22 749 01 11, <http://www.iso.org/iso/home.htm>.
- (1) ISO 6978-1:2003(E), Natural Gas—Determination of Mercury—Part 1: Sampling of Mercury by Chemisorption on Iodine, First edition, October 15, 2003, IFR approved for table 6 to subpart DDDDD.
- (2) ISO 6978-2:2003(E), Natural Gas—Determination of Mercury—Part 2: Sampling of Mercury by Amalgamation on Gold/Platinum Alloy, First edition, October 15, 2003, IFR approved for table 6 to subpart DDDDD.
- (3) ISO 16017-2:2003(E), Indoor, ambient and workplace air—sampling and analysis of volatile organic compounds by sorbent tube/thermal desorption/capillary gas chromatography—Part 2: Diffusive sampling, May 15, 2003, IFR approved for appendix A to this part: Method 325A and Method 325B.
- (n) National Council of the Paper Industry for Air and Stream Improvement, Inc. (NCASI), P.O. Box 133318, Research Triangle Park, NC 27709-3318 or at <http://www.ncasi.org>.
- (1) NCASI Method DI/MEOH-94.03, Methanol in Process Liquids and Wastewaters by GC/FID, Issued May 2000, IFR approved for §§63.457 and 63.459.
- (2) NCASI Method CI/WP-98.01, Chilled Impinger Method For Use At Wood Products Mills to Measure Formaldehyde, Methanol, and Phenol, 1998, Methods Manual, IFR approved for table 4 to subpart DDDD.
- (3) NCASI Method DI/HAPS-99.01, Selected HAPs In Condensates by GC/FID, Issued February 2000, IFR approved for §63.459(b).
- (4) NCASI Method IM/CAN/WP-99.02, Impinger/Canister Source Sampling Method for Selected HAPs and Other Compounds at Wood Products Facilities, January 2004, Methods Manual, IFR approved for table 4 to subpart DDDD.
- (5) NCASI Method ISS/FP A105.01, Impinger Source Sampling Method for Selected Aldehydes, Ketones, and Polar Compounds, December 2005, Methods Manual, IFR approved for table 4 to subpart DDDD and §§63.4751(f) and 63.4752(c).
- (q) National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, VA 22161, (703) 605-6000 or (800) 553-6847; or for purchase from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402, (202) 512-1800.
- (1) Handbook 44, Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices 1998, IFR approved for §63.1303(c).
- (2) "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, Third Edition. (A suffix of "A" in the method number indicates revision one (the method has been revised once). A suffix of "B" in the method number indicates revision two (the method has been revised twice).
- (i) Method 0023A, "Sampling Method for Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofuran Emissions from Stationary Sources," dated December 1996, IFR approved for §63.1208(b).
- (ii) Method 9071B, "n-Hexane Extractable Material (HEM) for Sludge, Sediment, and Solid Samples," dated April 1998, IFR approved for §63.7824(c).
- (iii) Method 9095A, "Paint Filter Liquids Test," dated December 1996, IFR approved for §§63.7700(b) and 63.7765.
- (iv) Method 9095B, "Paint Filter Liquids Test," (revision 2), dated November 2004, IFR approved for the definition of "Free organic liquids" in §§63.10692, 63.10885(a), and the definition of "Free liquids" in §63.10906.
- (v) SW-846 74741B, Revision 2, "Mercury in Solid or Semisolid Waste (Manual Cold-Vapor Technique)," February 2007, IFR approved for §63.11647(f).
- (3) National Institute of Occupational Safety and Health (NIOSH) test method compendium, "NIOSH Manual of Analytical Methods," NIOSH publication no. 94-113, Fourth Edition, August 15, 1994.
- (i) NIOSH Method 2010, "Amines, Aliphatic," Issue 2, August 15, 1994, IFR approved for §63.7732(g).
- (ii) [Reserved]
- (r) North American Electric Reliability Corporation, 1325 G Street, NW., Suite 600, Washington, DC 20005-3801, <http://www.nerc.com>, http://www.nerc.com/files/EOP0002-3_1.pdf.
- (1) North American Electric Reliability Corporation Reliability Standard EOP-002-3, Capacity and Energy Emergencies, adopted August 5, 2010, IFR approved for §63.6640(f).
- (2) [Reserved]

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- (s) Technical Association of the Pulp and Paper Industry (TAPPI), 15 Technology Parkway South, Norcross, GA 30092, (800) 332-8686, <http://www.tappi.org>.
- (1) TAPPI T 266, Determination of Sodium, Calcium, Copper, Iron, and Manganese in Pulp and Paper by Atomic Absorption Spectroscopy (Reaffirmation of T 266 om-02), Draft No. 2, July 2006, IFR approved for table 6 to subpart DDDDD.
- (2) [Reserved]
- (t) Texas Commission on Environmental Quality (TCEQ) Library, Post Office Box 13087, Austin, Texas 78711-3087, telephone number (512) 239-0028, http://www.tceq.state.tx.us/assets/public/implementation/air/sip/sipdocs/2002-12-HGB/020466sipapp_ado.pdf.
- (1) "Air Stripping Method (Modified El Paso Method) for Determination of Volatile Organic Compound Emissions from Water Sources," Revision Number One, dated January 2003, Sampling Procedures Manual, Appendix P: Cooling Tower Monitoring, January 31, 2003, IFR approved for §§63.654(c) and (g), 63.655(f), and 63.11920.
- (2) [Reserved]
- [79 FR 11277, Feb. 27, 2014, as amended at 79 FR 17363, Mar. 27, 2014; 80 FR 37389, June 30, 2015; 80 FR 50436, Aug. 19, 2015; 80 FR 56738, Sept. 18, 2015; 80 FR 62414, Oct. 15, 2015; 80 FR 65520, Oct. 26, 2015; 80 FR 75817, Dec. 4, 2015; 80 FR 75236, Dec. 1, 2015; 82 FR 5407, Jan. 18, 2017; 82 FR 47347, Oct. 11, 2017; 82 FR 48178, Oct. 16, 2017; 83 FR 9218, Mar. 5, 2018; 83 FR 48256, Sept. 24, 2018; 83 FR 51582, Oct. 15, 2018; 84 FR 6692, Feb. 28, 2019; 84 FR 7698, Mar. 15, 2019]
- §63.15 Availability of information and confidentiality.**
- (a) *Availability of information.* (1) With the exception of information protected through part 2 of this chapter, all reports, records, and other information collected by the Administrator under this part are available to the public. In addition, a copy of each permit application, compliance plan (including the schedule of compliance), notification of compliance status, excess emissions and continuous monitoring systems performance report, and title V permit is available to the public, consistent with protections recognized in section 503(c) of the Act.
- (2) The availability to the public of information provided to or otherwise obtained by the Administrator under this part shall be governed by part 2 of this chapter.
- (b) *Confidentiality.* (1) If an owner or operator is required to submit information entitled to protection from disclosure under section 114(c) of the Act, the owner or operator may submit such information separately. The requirements of section 114(c) shall apply to such information.
- (2) The contents of a title V permit shall not be entitled to protection under section 114(c) of the Act; however, information submitted as part of an application for a title V permit may be entitled to protection from disclosure.
- §63.16 Performance Track Provisions.**
- (a) Notwithstanding any other requirements in this part, an affected source at any major source or any area source at a Performance Track member facility, which is subject to regular periodic reporting under any subpart of this part, may submit such periodic reports at an interval that is twice the length of the regular period specified in the applicable subparts; provided, that for sources subject to permits under 40 CFR part 70 or 71 no interval so calculated for any report of the results of any required monitoring may be less frequent than once in every six months.
- (b) Notwithstanding any other requirements in this part, the modifications of reporting requirements in paragraph (c) of this section apply to any major source at a Performance Track member facility which is subject to requirements under any of the subparts of this part and which has:
- (1) Reduced its total HAP emissions to less than 25 tons per year;
 - (2) Reduced its emissions of each individual HAP to less than 10 tons per year; and
 - (3) Reduced emissions of all HAPs covered by each MACT standard to at least the level required for full compliance with the applicable emission standard.
- (c) For affected sources at any area source at a Performance Track member facility and which meet the requirements of paragraph (b)(3) of this section, or for affected sources at any major source that meet the requirements of paragraph (b) of this section:
- (1) If the emission standard to which the affected source is subject is based on add-on control technology, and the affected source complies by using add-on control technology, then all required reporting elements in the periodic report may be met through an annual certification that the affected source is meeting the emission standard by continuing to use that

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control technology. The affected source must continue to meet all relevant monitoring and recordkeeping requirements. The compliance certification must meet the requirements delineated in Clean Air Act section 114(a)(3).

(2) If the emission standard to which the affected source is subject is based on add-on control technology, and the affected source complies by using pollution prevention, then all required reporting elements in the periodic report may be met through an annual certification that the affected source is continuing to use pollution prevention to reduce HAP emissions to levels at or below those required by the applicable emission standard. The affected source must maintain records of all calculations that demonstrate the level of HAP emissions required by the emission standard as well as the level of HAP emissions achieved by the affected source. The affected source must continue to meet all relevant monitoring and recordkeeping requirements. The compliance certification must meet the requirements delineated in Clean Air Act section 114(a)(3).

(3) If the emission standard to which the affected source is subject is based on pollution prevention, and the affected source complies by using pollution prevention and reduces emissions by an additional 50 percent or greater than required by the applicable emission standard, then all required reporting elements in the periodic report may be met through an annual certification that the affected source is continuing to use pollution prevention to reduce HAP emissions by an additional 50 percent or greater than required by the applicable emission standard. The affected source must maintain records of all calculations that demonstrate the level of HAP emissions required by the emission standard as well as the level of HAP emissions achieved by the affected source. The affected source must continue to meet all relevant monitoring and recordkeeping requirements. The compliance certification must meet the requirements delineated in Clean Air Act section 114(a)(3).

(4) Notwithstanding the provisions of paragraphs (c)(1) through (3), of this section, for sources subject to permits under 40 CFR part 70 or 71, the results of any required monitoring and recordkeeping must be reported not less frequently than once in every six months.

[69 FR 21753, Apr. 22, 2004]

Table 1 to Subpart A of Part 63—Detection Sensitivity Levels (grams per hour)

Monitoring frequency per subpart ^a	Detection sensitivity level
Bi-Monthly	60
Semi-Quarterly	85
Monthly	100

^aWhen this alternative work practice is used to identify leaking equipment, the owner or operator must choose one of the monitoring frequencies listed in this table, in lieu of the monitoring frequency specified in the applicable subpart. Bi-monthly means every other month. Semi-quarterly means twice per quarter. Monthly means once per month.

[73 FR 78213, Dec. 22, 2008]

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APPENDIX NESHAP, SUBPART AAAA
NESHAP FOR MSW LANDFILLS

e-CFR data is current as of September 4, 2019

Title 40: Protection of Environment
PART 63—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES (CONTINUED)

Subpart AAAA—National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills

SOURCE: 68 FR 2238, Jan. 16, 2003, unless otherwise noted.

WHAT THIS SUBPART COVERS

§63.1930 What is the purpose of this subpart?

This subpart establishes national emission standards for hazardous air pollutants for existing and new municipal solid waste (MSW) landfills. This subpart requires all landfills described in §63.1935 to meet the requirements of 40 CFR part 60, subpart Cc or WWW and requires timely control of bioreactors. This subpart also requires such landfills to meet the startup, shutdown, and malfunction (SSM) requirements of the general provisions of this part and provides that compliance with the operating conditions shall be demonstrated by parameter monitoring results that are within the specified ranges. It also includes additional reporting requirements.

§63.1935 Am I subject to this subpart?

You are subject to this subpart if you meet the criteria in paragraph (a) or (b) of this section.

(a) You are subject to this subpart if you own or operate a MSW landfill that has accepted waste since November 8, 1987 or has additional capacity for waste deposition and meets any one of the three criteria in paragraphs (a)(1) through (3) of this section:

- (1) Your MSW landfill is a major source as defined in 40 CFR 63.2 of subpart A.
- (2) Your MSW landfill is collocated with a major source as defined in 40 CFR 63.2 of subpart A.

(3) Your MSW landfill is an area source landfill that has a design capacity equal to or greater than 2.5 million megagrams (Mg) and 2.5 million cubic meters (m³) and has estimated uncontrolled emissions equal to or greater than 50 megagrams per year (Mg/yr) NMOC as calculated according to §60.754(a) of the MSW landfills new source performance standards in 40 CFR part 60, subpart WWW, the Federal plan, or an EPA approved and effective State or tribal plan that applies to your landfill.

(b) You are subject to this subpart if you own or operate a MSW landfill that has accepted waste since November 8, 1987 or has additional capacity for waste deposition, that includes a bioreactor, as defined in §63.1990, and that meets any one of the criteria in paragraphs (b)(1) through (3) of this section:

- (1) Your MSW landfill is a major source as defined in 40 CFR 63.2 of subpart A.
- (2) Your MSW landfill is collocated with a major source as defined in 40 CFR 63.2 of subpart A.
- (3) Your MSW landfill is an area source landfill that has a design capacity equal to or greater than 2.5 million Mg and 2.5 million m³ and that is not permanently closed as of January 16, 2003.

§63.1940 What is the affected source of this subpart?

(a) An affected source of this subpart is a MSW landfill, as defined in §63.1990, that meets the criteria in §63.1935(a) or (b). The affected source includes the entire disposal facility in a contiguous geographic space where household waste is placed in or on land, including any portion of the MSW landfill operated as a bioreactor.

(b) A new affected source of this subpart is an affected source that commenced construction or reconstruction after November 7, 2000. An affected source is reconstructed if it meets the definition of reconstruction in 40 CFR 63.2 of subpart A.

(c) An affected source of this subpart is existing if it is not new.

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NESHAP FOR MSW LANDFILLS

§63.1945 When do I have to comply with this subpart?

- (a) If your landfill is a new affected source, you must comply with this subpart by January 16, 2003 or at the time you begin operating, whichever is last.
- (b) If your landfill is an existing affected source, you must comply with this subpart by January 16, 2004.
- (c) If your landfill is a new affected source and is a major source or is collocated with a major source, you must comply with the requirements in §§63.1955(b) and 63.1960 through 63.1980 by the date your landfill is required to install a collection and control system by 40 CFR 60.752(b)(2) of subpart WWW.
- (d) If your landfill is an existing affected source and is a major source or is collocated with a major source, you must comply with the requirements in §§63.1955(b) and 63.1960 through 63.1980 by the date your landfill is required to install a collection and control system by 40 CFR 60.752(b)(2) of subpart WWW, the Federal plan, or EPA approved and effective State or tribal plan that applies to your landfill or by January 13, 2004, whichever occurs later.
- (e) If your landfill is a new affected source and is an area source meeting the criteria in §63.1935(a)(3), you must comply with the requirements of §§63.1955(b) and 63.1960 through 63.1980 by the date your landfill is required to install a collection and control system by 40 CFR 60.752(b)(2) of subpart WWW.
- (f) If your landfill is an existing affected source and is an area source meeting the criteria in §63.1935(a)(3), you must comply with the requirements in §§63.1955(b) and 63.1960 through 63.1980 by the date your landfill is required to install a collection and control system by 40 CFR 60.752(b)(2) of subpart WWW, the Federal plan, or EPA approved and effective State or tribal plan that applies to your landfill or by January 16, 2004, whichever occurs later.

§63.1947 When do I have to comply with this subpart if I own or operate a bioreactor?

You must comply with this subpart by the dates specified in §63.1945(a) or (b) of this subpart. If you own or operate a bioreactor located at a landfill that is not permanently closed as of January 16, 2003 and has a design capacity equal to or greater than 2.5 million Mg and 2.5 million m³, then you must install and operate a collection and control system that meets the criteria in 40 CFR 60.752(b)(2)(v) of part 60, subpart WWW, the Federal plan, or EPA approved and effective State plan according to the schedule specified in paragraph (a), (b), or (c) of this section.

- (a) If your bioreactor is at a new affected source, then you must meet the requirements in paragraphs (a)(1) and (2) of this section:
- (1) Install the gas collection and control system for the bioreactor before initiating liquids addition.
 - (2) Begin operating the gas collection and control system within 180 days after initiating liquids addition or within 180 days after achieving a moisture content of 40 percent by weight, whichever is later. If you choose to begin gas collection and control system operation 180 days after achieving a 40 percent moisture content instead of 180 days after liquids addition, use the procedures in §63.1980(g) and (h) to determine when the bioreactor moisture content reaches 40 percent.
- (b) If your bioreactor is at an existing affected source, then you must install and begin operating the gas collection and control system for the bioreactor by January 17, 2006 or by the date your bioreactor is required to install a gas collection and control system under 40 CFR part 60, subpart WWW, the Federal plan, or EPA approved and effective State plan or tribal plan that applies to your landfill, whichever is earlier.
- (c) If your bioreactor is at an existing affected source and you do not initiate liquids addition to your bioreactor until later than January 17, 2006, then you must meet the requirements in paragraphs (c)(1) and (2) of this section:
- (1) Install the gas collection and control system for the bioreactor before initiating liquids addition.
 - (2) Begin operating the gas collection and control system within 180 days after initiating liquids addition or within 180 days after achieving a moisture content of 40 percent by weight, whichever is later. If you choose to begin gas collection and control system operation 180 days after achieving a 40 percent moisture content instead of 180 days after liquids addition, use the procedures in §63.1980(g) and (h) to determine when the bioreactor moisture content reaches 40 percent.

§63.1950 When am I no longer required to comply with this subpart?

You are no longer required to comply with the requirements of this subpart when you are no longer required to apply controls as specified in 40 CFR 60.752(b)(2)(v) of subpart WWW, or the Federal plan or EPA approved and effective State plan or tribal plan that implements 40 CFR part 60, subpart Cc, whichever applies to your landfill.

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NESHAP FOR MSW LANDFILLS

§63.1952 When am I no longer required to comply with the requirements of this subpart if I own or operate a bioreactor?

If you own or operate a landfill that includes a bioreactor, you are no longer required to comply with the requirements of this subpart for the bioreactor provided you meet the conditions of either paragraphs (a) or (b).

- (a) Your affected source meets the control system removal criteria in 40 CFR 60.752(b)(2)(v) of part 60, subpart WWW or the bioreactor meets the criteria for a nonproductive area of the landfill in 40 CFR 60.759(a)(3)(ii) of part 60, subpart WWW.
- (b) The bioreactor portion of the landfill is a closed landfill as defined in 40 CFR 60.751, subpart WWW, you have permanently ceased adding liquids to the bioreactor, and you have not added liquids to the bioreactor for at least 1 year. A closure report for the bioreactor must be submitted to the Administrator as provided in 40 CFR 60.757(d) of subpart WWW.
- (c) Compliance with the bioreactor control removal provisions in this section constitutes compliance with 40 CFR part 60, subpart WWW or the Federal plan, whichever applies to your bioreactor.

STANDARDS

§63.1955 What requirements must I meet?

- (a) You must fulfill one of the requirements in paragraph (a)(1) or (2) of this section, whichever is applicable:
- (1) Comply with the requirements of 40 CFR part 60, subpart WWW.
 - (2) Comply with the requirements of the Federal plan or EPA approved and effective State plan or tribal plan that implements 40 CFR part 60, subpart Cc.
- (b) If you are required by 40 CFR 60.752(b)(2) of subpart WWW, the Federal plan, or an EPA approved and effective State or tribal plan to install a collection and control system, you must comply with the requirements in §§63.1960 through 63.1985 and with the general provisions of this part specified in table 1 of this subpart.
- (c) For approval of collection and control systems that include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions, you must follow the procedures in 40 CFR 60.752(b)(2). If alternatives have already been approved under 40 CFR part 60 subpart WWW or the Federal plan, or EPA approved and effective State or tribal plan, these alternatives can be used to comply with this subpart, except that all affected sources must comply with the SSM requirements in Subpart A of this part as specified in Table 1 of this subpart and all affected sources must submit compliance reports every 6 months as specified in §63.1980(a) and (b), including information on all deviations that occurred during the 6-month reporting period. Deviations for continuous emission monitors or numerical continuous parameter monitors must be determined using a 3 hour monitoring block average.
- (d) If you own or operate a bioreactor that is located at a MSW landfill that is not permanently closed and has a design capacity equal to or greater than 2.5 million Mg and 2.5 million m³, then you must meet the requirements of paragraph (a) and the additional requirements in paragraphs (d)(1) and (2) of this section.
- (1) You must comply with the general provisions specified in Table 1 of this subpart and §§63.1960 through 63.1985 starting on the date you are required to install the gas collection and control system.
 - (2) You must extend the collection and control system into each new cell or area of the bioreactor prior to initiating liquids addition in that area, instead of the schedule in 40 CFR 60.752(b)(2)(ii)(A)(2).

GENERAL AND CONTINUING COMPLIANCE REQUIREMENTS

§63.1960 How is compliance determined?

Compliance is determined in the same way it is determined for 40 CFR part 60, subpart WWW, including performance testing, monitoring of the collection system, continuous parameter monitoring, and other credible evidence. In addition, continuous parameter monitoring data, collected under 40 CFR 60.756(b)(1), (c)(1), and (d) of subpart WWW, are used to demonstrate compliance with the operating conditions for control systems. If a deviation occurs, you have failed to meet the control device operating conditions described in this subpart and have deviated from the requirements of this subpart. Finally, you must develop a written SSM plan according to the provisions in 40 CFR 63.6(e)(3). A copy of the SSM plan must be maintained on site. Failure to write or maintain a copy of the SSM plan is a deviation from the requirements of this subpart.

[68 FR 2238, Jan. 16, 2003, as amended at 71 FR 20462, Apr. 20, 2006]

**APPENDIX NESHAP, SUBPART AAAA
NESHAP FOR MSW LANDFILLS**

§63.1965 What is a deviation?

A deviation is defined in §63.1990. For the purposes of the landfill monitoring and SSM plan requirements, deviations include the items in paragraphs (a) through (c) of this section.

(a) A deviation occurs when the control device operating parameter boundaries described in 40 CFR 60.758(c)(1) of subpart WWW are exceeded.

(b) A deviation occurs when 1 hour or more of the hours during the 3-hour block averaging period does not constitute a valid hour of data. A valid hour of data must have measured values for at least three 15-minute monitoring periods within the hour.

(c) A deviation occurs when a SSM plan is not developed or maintained on site.

[68 FR 2238, Jan. 16, 2003, as amended at 71 FR 20462, Apr. 20, 2006]

§63.1975 How do I calculate the 3-hour block average used to demonstrate compliance?

Averages are calculated in the same way as they are calculated in 40 CFR part 60, subpart WWW, except that the data collected during the events listed in paragraphs (a), (b), (c), and (d) of this section are not to be included in any average computed under this subpart:

- (a) Monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments.
- (b) Startups.
- (c) Shutdowns.
- (d) Malfunctions.

NOTIFICATIONS, RECORDS, AND REPORTS**§63.1980 What records and reports must I keep and submit?**

(a) Keep records and reports as specified in 40 CFR part 60, subpart WWW, or in the Federal plan, EPA approved State plan or tribal plan that implements 40 CFR part 60, subpart Cc, whichever applies to your landfill, with one exception: You must submit the annual report described in 40 CFR 60.757(f) every 6 months.

(b) You must also keep records and reports as specified in the general provisions of 40 CFR part 60 and this part as shown in Table 1 of this subpart. Applicable records in the general provisions include items such as SSM plans and the SSM plan reports.

(c) For bioreactors at new affected sources you must submit the initial semiannual compliance report and performance test results described in 40 CFR 60.757(f) within 180 days after the date you are required to begin operating the gas collection and control system by §63.1947(a)(2) of this subpart.

(d) For bioreactors at existing affected sources, you must submit the initial semiannual compliance report and performance test results described in 40 CFR 60.757(f) within 180 days after the compliance date specified in §63.1947(b) of this subpart, unless you have previously submitted a compliance report for the bioreactor required by 40 CFR part 60, subpart WWW, the Federal plan, or an EPA approved and effective State plan or tribal plan.

(e) For bioreactors that are located at existing affected sources, but do not initiate liquids addition until later than the compliance date in §63.1947(b) of this subpart, you must submit the initial semiannual compliance report and performance tests results described in 40 CFR 60.757(f) within 180 days after the date you are required to begin operating the gas collection and control system by §63.1947(c) of this subpart.

(f) If you must submit a semiannual compliance report for a bioreactor as well as a semiannual compliance report for a conventional portion of the same landfill, you may delay submittal of a subsequent semiannual compliance report for the bioreactor according to paragraphs (f)(1) through (3) of this section so that the reports may be submitted on the same schedule.

(1) After submittal of your initial semiannual compliance report and performance test results for the bioreactor, you may delay submittal of the subsequent semiannual compliance report for the bioreactor until the date the initial or subsequent semiannual compliance report is due for the conventional portion of your landfill.

**APPENDIX NESHAP, SUBPART AAAA
NESHAP FOR MSW LANDFILLS**

(2) You may delay submittal of your subsequent semiannual compliance report by no more than 12 months after the due date for submitting the initial semiannual compliance report and performance test results described in 40 CFR 60.757(f) for the bioreactor. The report shall cover the time period since the previous semiannual report for the bioreactor, which would be a period of at least 6 months and no more than 12 months.

(3) After the delayed semiannual report, all subsequent semiannual reports for the bioreactor must be submitted every 6 months on the same date the semiannual report for the conventional portion of the landfill is due.

(g) If you add any liquids other than leachate in a controlled fashion to the waste mass and do not comply with the bioreactor requirements in §§63.1947, 63.1955(c) and 63.1980(c) through (f) of this subpart, you must keep a record of calculations showing that the percent moisture by weight expected in the waste mass to which liquid is added is less than 40 percent. The calculation must consider the waste mass, moisture content of the incoming waste, mass of water added to the waste including leachate recirculation and other liquids addition and precipitation, and the mass of water removed through leachate or other water losses. Moisture level sampling or mass balances calculations can be used. You must document the calculations and the basis of any assumptions. Keep the record of the calculations until you cease liquids addition.

(h) If you calculate moisture content to establish the date your bioreactor is required to begin operating the collection and control system under §63.1947(a)(2) or (c)(2), keep a record of the calculations including the information specified in paragraph (g) of this section for 5 years. Within 90 days after the bioreactor achieves 40 percent moisture content, report the results of the calculation, the date the bioreactor achieved 40 percent moisture content by weight, and the date you plan to begin collection and control system operation.

OTHER REQUIREMENTS AND INFORMATION**§63.1985 Who enforces this subpart?**

(a) This subpart can be implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable State, local, or tribal agency. If the EPA Administrator has delegated authority to a State, local, or tribal agency, then that agency as well as the U.S. EPA has the authority to implement and enforce this subpart. Contact the applicable EPA Regional Office to find out if this subpart is delegated to a State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the EPA Administrator and are not transferred to the State, local, or tribal agency.

(c) The authorities that will not be delegated to State, local, or tribal agencies are as follows. Approval of alternatives to the standards in §63.1955. Where these standards reference another subpart, the cited provisions will be delegated according to the delegation provisions of the referenced subpart.

§63.1990 What definitions apply to this subpart?

Terms used in this subpart are defined in the Clean Air Act, 40 CFR part 60, subparts A, Cc, and WWW; 40 CFR part 62, subpart GGG, and subpart A of this part, and this section that follows:

Bioreactor means a MSW landfill or portion of a MSW landfill where any liquid other than leachate (leachate includes landfill gas condensate) is added in a controlled fashion into the waste mass (often in combination with recirculating leachate) to reach a minimum average moisture content of at least 40 percent by weight to accelerate or enhance the anaerobic (without oxygen) biodegradation of the waste.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart, including, but not limited to, any emissions limitation (including any operating limit) or work practice standard;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limitation, (including any operating limit), or work practice standard in this subpart during SSM, regardless of whether or not such failure is permitted by this subpart.

Emissions limitation means any emission limit, opacity limit, operating limit, or visible emissions limit.

APPENDIX NESHAP, SUBPART AAAAA
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EPA approved State plan means a State plan that EPA has approved based on the requirements in 40 CFR part 60, subpart B to implement and enforce 40 CFR part 60, subpart Cc. An approved State plan becomes effective on the date specified in the notice published in the FEDERAL REGISTER announcing EPA's approval.

Federal plan means the EPA plan to implement 40 CFR part 60, subpart Cc for existing MSW landfills located in States and Indian country where State plans or tribal plans are not currently in effect. On the effective date of an EPA approved State or tribal plan, the Federal plan no longer applies. The Federal plan is found at 40 CFR part 62, subpart GGG.

Municipal solid waste landfill or MSW landfill means an entire disposal facility in a contiguous geographical space where household waste is placed in or on land. A municipal solid waste landfill may also receive other types of RCRA Subtitle D wastes (see §257.2 of this chapter) such as commercial solid waste, nonhazardous sludge, conditionally exempt small quantity generator waste, and industrial solid waste. Portions of a municipal solid waste landfill may be separated by access roads. A municipal solid waste landfill may be publicly or privately owned. A municipal solid waste landfill may be a new municipal solid waste landfill, an existing municipal solid waste landfill, or a lateral expansion.

Tribal plan means a plan submitted by a tribal authority pursuant to 40 CFR parts 9, 35, 49, 50, and 81 to implement and enforce 40 CFR part 60, subpart Cc.

Work practice standard means any design, equipment, work practice, or operational standard, or combination thereof, that is promulgated pursuant to section 112(h) of the Clean Air Act.

As stated in §§63.1955 and 63.1980, you must meet each requirement in the following table that applies to you.

Table 1 to Subpart AAAAA of Part 63—Applicability of NESHAP General Provisions to Subpart AAAAA

Part 63 Citation	Description	Explanation
63.1(a)	Applicability: general applicability of NESHAP in this part	Affected sources are already subject to the provisions of paragraphs (a)(10)-(12) through the same provisions under 40 CFR, part 60 subpart A.
63.1(b)	Applicability determination for stationary sources	
63.1(e)	Title V permitting	
63.2	Definitions	
63.4	Prohibited activities and circumvention	Affected sources are already subject to the provisions of paragraph (b) through the same provisions under 40 CFR, part 60 subpart A.
63.5(b)	Requirements for existing, newly constructed, and reconstructed sources	
63.6(e)	Operation and maintenance requirements, startup, shutdown and malfunction plan provisions	
63.6(f)	Compliance with nonopacity emission standards	Affected sources are already subject to the provisions of paragraphs (f)(1) and (2)(i) through the same provisions under 40 CFR, part 60 subpart A.
63.10(b)(2)(i)-(b)(2)(v)	General recordkeeping requirements	

APPENDIX NESHAP, SUBPART AAAAA
NESHAP FOR MSW LANDFILLS

63.10(d)(5)	If actions taken during a startup, shutdown and malfunction plan are consistent with the procedures in the startup, shutdown and malfunction plan, this information shall be included in a semi-annual startup, shutdown and malfunction plan report. Any time an action taken during a startup, shutdown and malfunction plan is not consistent with the startup, shutdown and malfunction plan, the source shall report actions taken within 2 working days after commencing such actions, followed by a letter 7 days after the event	
63.12(a)	These provisions do not preclude the State from adopting and enforcing any standard, limitation, etc., requiring permits, or requiring emissions reductions in excess of those specified	
63.15	Availability of information and confidentiality	

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APPENDIX NSPS, SUBPART A OF 40 CFR 60
GENERAL PROVISIONS

e-CFR data is current as of September 4, 2019

Title 40: Protection of Environment
PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

Subpart A—General Provisions

§60.1 Applicability.

(a) Except as provided in subparts B and C, the provisions of this part apply to the owner or operator of any stationary source which contains an affected facility, the construction or modification of which is commenced after the date of publication in this part of any standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility.

(b) Any new or revised standard of performance promulgated pursuant to section 111(b) of the Act shall apply to the owner or operator of any stationary source which contains an affected facility, the construction or modification of which is commenced after the date of publication in this part of such new or revised standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility.

(c) In addition to complying with the provisions of this part, the owner or operator of an affected facility may be required to obtain an operating permit issued to stationary sources by an authorized State air pollution control agency or by the Administrator of the U.S. Environmental Protection Agency (EPA) pursuant to Title V of the Clean Air Act (Act) as amended November 15, 1990 (42 U.S.C. 7661). For more information about obtaining an operating permit see part 70 of this chapter.

(d) *Site-specific standard for Merck & Co., Inc.'s Stonewall Plant in Elkton, Virginia.* (1) This paragraph applies only to the pharmaceutical manufacturing facility, commonly referred to as the Stonewall Plant, located at Route 340 South, in Elkton, Virginia ("site").

(2) Except for compliance with 40 CFR 60.49b(u), the site shall have the option of either complying directly with the requirements of this part, or reducing the site-wide emissions caps in accordance with the procedures set forth in a permit issued pursuant to 40 CFR 52.2454. If the site chooses the option of reducing the site-wide emissions caps in accordance with the procedures set forth in such permit, the requirements of such permit shall apply in lieu of the otherwise applicable requirements of this part.

(3) Notwithstanding the provisions of paragraph (d)(2) of this section, for any provisions of this part except for Subpart Kb, the owner/operator of the site shall comply with the applicable provisions of this part if the Administrator determines that compliance with the provisions of this part is necessary for achieving the objectives of the regulation and the Administrator notifies the site in accordance with the provisions of the permit issued pursuant to 40 CFR 52.2454.

[40 FR 53346, Nov. 17, 1975, as amended at 55 FR 51382, Dec. 13, 1990; 59 FR 12427, Mar. 16, 1994; 62 FR 52641, Oct. 8, 1997]

§60.2 Definitions.

The terms used in this part are defined in the Act or in this section as follows:

Act means the Clean Air Act (42 U.S.C. 7401 *et seq.*)

Administrator means the Administrator of the Environmental Protection Agency or his authorized representative.

Affected facility means, with reference to a stationary source, any apparatus to which a standard is applicable.

Alternative method means any method of sampling and analyzing for an air pollutant which is not a reference or equivalent method but which has been demonstrated to the Administrator's satisfaction to, in specific cases, produce results adequate for his determination of compliance.

Approved permit program means a State permit program approved by the Administrator as meeting the requirements of part 70 of this chapter or a Federal permit program established in this chapter pursuant to Title V of the Act (42 U.S.C. 7661).

Nassau County Board of Commissioners
West Nassau Class I Landfill

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Capital expenditure means an expenditure for a physical or operational change to an existing facility which exceeds the product of the applicable "annual asset guideline repair allowance percentage" specified in the latest edition of Internal Revenue Service (IRS) Publication 534 and the existing facility's basis, as defined by section 1012 of the Internal Revenue Code. However, the total expenditure for a physical or operational change to an existing facility must not be reduced by any "excluded additions" as defined in IRS Publication 534, as would be done for tax purposes.

Clean coal technology demonstration project means a project using funds appropriated under the heading 'Department of Energy-Clean Coal Technology', up to a total amount of \$2,500,000,000 for commercial demonstrations of clean coal technology, or similar projects funded through appropriations for the Environmental Protection Agency.

Commenced means, with respect to the definition of *new source* in section 111(a)(2) of the Act, that an owner or operator has undertaken a continuous program of construction or modification or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or modification.

Construction means fabrication, erection, or installation of an affected facility.

Continuous monitoring system means the total equipment, required under the emission monitoring sections in applicable subparts, used to sample and condition (if applicable), to analyze, and to provide a permanent record of emissions or process parameters.

Electric utility steam generating unit means any steam electric generating unit that is constructed for the purpose of supplying more than one-third of its potential electric output capacity and more than 25 MW electrical output to any utility power distribution system for sale. Any steam supplied to a steam distribution system for the purpose of providing steam to a steam-electric generator that would produce electrical energy for sale is also considered in determining the electrical energy output capacity of the affected facility.

Equivalent method means any method of sampling and analyzing for an air pollutant which has been demonstrated to the Administrator's satisfaction to have a consistent and quantitatively known relationship to the reference method, under specified conditions.

Excess Emissions and Monitoring Systems Performance Report is a report that must be submitted periodically by a source in order to provide data on its compliance with stated emission limits and operating parameters, and on the performance of its monitoring systems.

Existing facility means, with reference to a stationary source, any apparatus of the type for which a standard is promulgated in this part, and the construction or modification of which was commenced before the date of proposal of that standard; or any apparatus which could be altered in such a way as to be of that type.

Force majeure means, for purposes of §60.8, an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents the owner or operator from complying with the regulatory requirement to conduct performance tests within the specified timeframe despite the affected facility's best efforts to fulfill the obligation. Examples of such events are acts of nature, acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility.

Isokinetic sampling means sampling in which the linear velocity of the gas entering the sampling nozzle is equal to that of the undisturbed gas stream at the sample point.

Issuance of a part 70 permit will occur, if the State is the permitting authority, in accordance with the requirements of part 70 of this chapter and the applicable, approved State permit program. When the EPA is the permitting authority, issuance of a Title V permit occurs immediately after the EPA takes final action on the final permit.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Modification means any physical change in, or change in the method of operation of, an existing facility which increases the amount of any air pollutant (to which a standard applies) emitted into the atmosphere by that facility or which results in the emission of any air pollutant (to which a standard applies) into the atmosphere not previously emitted.

Monitoring device means the total equipment, required under the monitoring of operations sections in applicable subparts, used to measure and record (if applicable) process parameters.

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Nitrogen oxides means all oxides of nitrogen except nitrous oxide, as measured by test methods set forth in this part.

One-hour period means any 60-minute period commencing on the hour.

Opacity means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

Owner or operator means any person who owns, leases, operates, controls, or supervises an affected facility or a stationary source of which an affected facility is a part.

Part 70 permit means any permit issued, renewed, or revised pursuant to part 70 of this chapter.

Particulate matter means any finely divided solid or liquid material, other than uncombined water, as measured by the reference methods specified under each applicable subpart, or an equivalent or alternative method.

Permit program means a comprehensive State operating permit system established pursuant to title V of the Act (42 U.S.C. 7661) and regulations codified in part 70 of this chapter and applicable State regulations, or a comprehensive Federal operating permit system established pursuant to title V of the Act and regulations codified in this chapter.

Permitting authority means:

(1) The State air pollution control agency, local agency, other State agency, or other agency authorized by the Administrator to carry out a permit program under part 70 of this chapter; or

(2) The Administrator, in the case of EPA-implemented permit programs under title V of the Act (42 U.S.C. 7661).

Proportional sampling means sampling at a rate that produces a constant ratio of sampling rate to stack gas flow rate.

Reactivation of a very clean coal-fired electric utility steam generating unit means any physical change or change in the method of operation associated with the commencement of commercial operations by a coal-fired utility unit after a period of discontinued operation where the unit:

(1) Has not been in operation for the two-year period prior to the enactment of the Clean Air Act Amendments of 1990, and the emissions from such unit continue to be carried in the permitting authority's emissions inventory at the time of enactment;

(2) Was equipped prior to shut-down with a continuous system of emissions control that achieves a removal efficiency for sulfur dioxide of no less than 85 percent and a removal efficiency for particulates of no less than 98 percent;

(3) Is equipped with low-NO_x burners prior to the time of commencement of operations following reactivation; and

(4) Is otherwise in compliance with the requirements of the Clean Air Act.

Reference method means any method of sampling and analyzing for an air pollutant as specified in the applicable subpart.

Repowering means replacement of an existing coal-fired boiler with one of the following clean coal technologies: atmospheric or pressurized fluidized bed combustion, integrated gasification combined cycle, magnetohydrodynamics, direct and indirect coal-fired turbines, integrated gasification fuel cells, or as determined by the Administrator, in consultation with the Secretary of Energy, a derivative of one or more of these technologies, and any other technology capable of controlling multiple combustion emissions simultaneously with improved boiler or generation efficiency and with significantly greater waste reduction relative to the performance of technology in widespread commercial use as of November 15, 1990. Repowering shall also include any oil and/or gas-fired unit which has been awarded clean coal technology demonstration funding as of January 1, 1991, by the Department of Energy.

Run means the net period of time during which an emission sample is collected. Unless otherwise specified, a run may be either intermittent or continuous within the limits of good engineering practice.

Shutdown means the cessation of operation of an affected facility for any purpose.

Six-minute period means any one of the 10 equal parts of a one-hour period.

Standard means a standard of performance proposed or promulgated under this part.

Standard conditions means a temperature of 293 K (68F) and a pressure of 101.3 kilopascals (29.92 in Hg).

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Startup means the setting in operation of an affected facility for any purpose.

State means all non-Federal authorities, including local agencies, interstate associations, and State-wide programs, that have delegated authority to implement: (1) The provisions of this part; and/or (2) the permit program established under part 70 of this chapter. The term State shall have its conventional meaning where clear from the context.

Stationary source means any building, structure, facility, or installation which emits or may emit any air pollutant.

Title V permit means any permit issued, renewed, or revised pursuant to Federal or State regulations established to implement title V of the Act (42 U.S.C. 7661). A title V permit issued by a State permitting authority is called a part 70 permit in this part.

Volatile Organic Compound means any organic compound which participates in atmospheric photochemical reactions; or which is measured by a reference method, an equivalent method, an alternative method, or which is determined by procedures specified under any subpart.

[44 FR 55173, Sept. 25, 1979, as amended at 45 FR 5617, Jan. 23, 1980; 45 FR 85415, Dec. 24, 1980; 54 FR 6662, Feb. 14, 1989; 55 FR 51382, Dec. 13, 1990; 57 FR 32338, July 21, 1992; 59 FR 12427, Mar. 16, 1994; 72 FR 27442, May 16, 2007]

§60.5 Determination of construction or modification.

(a) When requested to do so by an owner or operator, the Administrator will make a determination of whether action taken or intended to be taken by such owner or operator constitutes construction (including reconstruction) or modification or the commencement thereof within the meaning of this part.

(b) The Administrator will respond to any request for a determination under paragraph (a) of this section within 30 days of receipt of such request.

[40 FR 58418, Dec. 16, 1975]

§60.6 Review of plans.

(a) When requested to do so by an owner or operator, the Administrator will review plans for construction or modification for the purpose of providing technical advice to the owner or operator.

(b)(1) A separate request shall be submitted for each construction or modification project.

(2) Each request shall identify the location of such project, and be accompanied by technical information describing the proposed nature, size, design, and method of operation of each affected facility involved in such project, including information on any equipment to be used for measurement or control of emissions.

(c) Neither a request for plans review nor advice furnished by the Administrator in response to such request shall (1) relieve an owner or operator of legal responsibility for compliance with any provision of this part or of any applicable State or local requirement, or (2) prevent the Administrator from implementing or enforcing any provision of this part or taking any other action authorized by the Act.

[36 FR 24877, Dec. 23, 1971, as amended at 39 FR 9314, Mar. 8, 1974]

§60.7 Notification and record keeping.

(a) Any owner or operator subject to the provisions of this part shall furnish the Administrator written notification or, if acceptable to both the Administrator and the owner or operator of a source, electronic notification, as follows:

(1) A notification of the date construction (or reconstruction as defined under §60.15) of an affected facility is commenced postmarked no later than 30 days after such date. This requirement shall not apply in the case of mass-produced facilities which are purchased in completed form.

(2) [Reserved]

(3) A notification of the actual date of initial startup of an affected facility postmarked within 15 days after such date.

(4) A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in §60.14(c). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive

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capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice.

(5) A notification of the date upon which demonstration of the continuous monitoring system performance commences in accordance with §60.13(e). Notification shall be postmarked not less than 30 days prior to such date.

(6) A notification of the anticipated date for conducting the opacity observations required by §60.11(e)(1) of this part. The notification shall also include, if appropriate, a request for the Administrator to provide a visible emissions reader during a performance test. The notification shall be postmarked not less than 30 days prior to such date.

(7) A notification that continuous opacity monitoring system data results will be used to determine compliance with the applicable opacity standard during a performance test required by §60.8 in lieu of Method 9 observation data as allowed by §60.11(e)(5) of this part. This notification shall be postmarked not less than 30 days prior to the date of the performance test.

(b) Any owner or operator subject to the provisions of this part shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

(c) Each owner or operator required to install a continuous monitoring device shall submit excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or summary report form (see paragraph (d) of this section) to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each six-month period. Written reports of excess emissions shall include the following information:

(1) The magnitude of excess emissions computed in accordance with §60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.

(2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.

(3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.

(4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

(d) The summary report form shall contain the information and be in the format shown in figure 1 unless otherwise specified by the Administrator. One summary report form shall be submitted for each pollutant monitored at each affected facility.

(1) If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in §60.7(c) need not be submitted unless requested by the Administrator.

(2) If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in §60.7(c) shall both be submitted.

FIGURE 1—SUMMARY REPORT—GASEOUS AND OPACITY EXCESS EMISSION AND MONITORING SYSTEM PERFORMANCE

Pollutant (Circle One—SO₂/NO_x/TRS/H₂S/CO/Opacity)

Reporting period dates: From _____ to _____

Company:

Emission Limitation

Address:

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Monitor Manufacturer and Model No.

Date of Latest CMS Certification or Audit

Process Unit(s) Description:

Total source operating time in reporting period¹

Emission data summary ¹		CMS performance summary ¹	
1. Duration of excess emissions in reporting period due to:		1. CMS downtime in reporting period due to:	
a. Startup/shutdown		a. Monitor equipment malfunctions	
b. Control equipment problems		b. Non-Monitor equipment malfunctions	
c. Process problems		c. Quality assurance calibration	
d. Other known causes		d. Other known causes	
e. Unknown causes		e. Unknown causes	
2. Total duration of excess emission		2. Total CMS Downtime	
3. Total duration of excess emissions × (100) [Total source operating time]	% ²	3. [Total CMS Downtime] × (100) [Total source operating time]	% ²

¹For opacity, record all times in minutes. For gases, record all times in hours.

²For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

On a separate page, describe any changes since last quarter in CMS, process or controls. I certify that the information contained in this report is true, accurate, and complete.

Name

Signature

Title

Date

(e)(1) Notwithstanding the frequency of reporting requirements specified in paragraph (c) of this section, an owner or operator who is required by an applicable subpart to submit excess emissions and monitoring systems performance reports (and summary reports) on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:

(i) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected facility's excess emissions and monitoring systems reports submitted to comply with a standard under this part continually demonstrate that the facility is in compliance with the applicable standard;

(ii) The owner or operator continues to comply with all recordkeeping and monitoring requirements specified in this subpart and the applicable standard; and

(iii) The Administrator does not object to a reduced frequency of reporting for the affected facility, as provided in paragraph (e)(2) of this section.

(2) The frequency of reporting of excess emissions and monitoring systems performance (and summary) reports may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the required recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification

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from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.

(3) As soon as monitoring data indicate that the affected facility is not in compliance with any emission limitation or operating parameter specified in the applicable standard, the frequency of reporting shall revert to the frequency specified in the applicable standard, and the owner or operator shall submit an excess emissions and monitoring systems performance report (and summary report, if required) at the next appropriate reporting period following the noncomplying event. After demonstrating compliance with the applicable standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard as provided for in paragraphs (c)(1) and (c)(2) of this section.

(f) Any owner or operator subject to the provisions of this part shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports, and records, except as follows:

(1) This paragraph applies to owners or operators required to install a continuous emissions monitoring system (CEMS) where the CEMS installed is automated, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. An automated CEMS records and reduces the measured data to the form of the pollutant emission standard through the use of a computerized data acquisition system. In lieu of maintaining a file of all CEMS subhourly measurements as required under paragraph (f) of this section, the owner or operator shall retain the most recent consecutive three averaging periods of subhourly measurements and a file that contains a hard copy of the data acquisition system algorithm used to reduce the measured data into the reportable form of the standard.

(2) This paragraph applies to owners or operators required to install a CEMS where the measured data is manually reduced to obtain the reportable form of the standard, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. In lieu of maintaining a file of all CEMS subhourly measurements as required under paragraph (f) of this section, the owner or operator shall retain all subhourly measurements for the most recent reporting period. The subhourly measurements shall be retained for 120 days from the date of the most recent summary or excess emission report submitted to the Administrator.

(3) The Administrator or delegated authority, upon notification to the source, may require the owner or operator to maintain all measurements as required by paragraph (f) of this section, if the Administrator or the delegated authority determines these records are required to more accurately assess the compliance status of the affected source.

(g) If notification substantially similar to that in paragraph (a) of this section is required by any other State or local agency, sending the Administrator a copy of that notification will satisfy the requirements of paragraph (a) of this section.

(h) Individual subparts of this part may include specific provisions which clarify or make inapplicable the provisions set forth in this section.

[36 FR 24877, Dec. 28, 1971, as amended at 40 FR 46254, Oct. 6, 1975; 40 FR 58418, Dec. 16, 1975; 45 FR 5617, Jan. 23, 1980; 48 FR 48335, Oct. 18, 1983; 50 FR 53113, Dec. 27, 1985; 52 FR 9781, Mar. 26, 1987; 55 FR 51382, Dec. 13, 1990; 59 FR 12428, Mar. 16, 1994; 59 FR 47265, Sep. 15, 1994; 64 FR 7463, Feb. 12, 1999]

§60.8 Performance tests.

(a) Except as specified in paragraphs (a)(1), (a)(2), (a)(3), and (a)(4) of this section, within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility, or at such other times specified by this part, and at such other times as may be required by the Administrator under section 114 of the Act, the owner or operator of such facility shall conduct performance test(s) and furnish the Administrator a written report of the results of such performance test(s).

(1) If a force majeure is about to occur, occurs, or has occurred for which the affected owner or operator intends to assert a claim of force majeure, the owner or operator shall notify the Administrator, in writing as soon as practicable following the date the owner or operator first knew, or through due diligence should have known that the event may cause or caused a delay in testing beyond the regulatory deadline, but the notification must occur before the performance test deadline unless the initial force majeure or a subsequent force majeure event delays the notice, and in such cases, the notification shall occur as soon as practicable.

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(2) The owner or operator shall provide to the Administrator a written description of the force majeure event and a rationale for attributing the delay in testing beyond the regulatory deadline to the force majeure; describe the measures taken or to be taken to minimize the delay; and identify a date by which the owner or operator proposes to conduct the performance test. The performance test shall be conducted as soon as practicable after the force majeure occurs.

(3) The decision as to whether or not to grant an extension to the performance test deadline is solely within the discretion of the Administrator. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an extension as soon as practicable.

(4) Until an extension of the performance test deadline has been approved by the Administrator under paragraphs (a)(1), (2), and (3) of this section, the owner or operator of the affected facility remains strictly subject to the requirements of this part.

(b) Performance tests shall be conducted and data reduced in accordance with the test methods and procedures contained in each applicable subpart unless the Administrator (1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology, (2) approves the use of an equivalent method, (3) approves the use of an alternative method the results of which he has determined to be adequate for indicating whether a specific source is in compliance, (4) waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Administrator's satisfaction that the affected facility is in compliance with the standard, or (5) approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors. Nothing in this paragraph shall be construed to abrogate the Administrator's authority to require testing under section 114 of the Act.

(c) Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.

(d) The owner or operator of an affected facility shall provide the Administrator at least 30 days prior notice of any performance test, except as specified under other subparts, to afford the Administrator the opportunity to have an observer present. If after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting the scheduled performance test, the owner or operator of an affected facility shall notify the Administrator (or delegated State or local agency) as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Administrator (or delegated State or local agency) by mutual agreement.

(e) The owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:

(1) Sampling ports adequate for test methods applicable to such facility. This includes (i) constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures and (ii) providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.

(2) Safe sampling platform(s).

(3) Safe access to sampling platform(s).

(4) Utilities for sampling and testing equipment.

(f) Unless otherwise specified in the applicable subpart, each performance test shall consist of three separate runs using the applicable test method.

(1) Each run shall be conducted for the time and under the conditions specified in the applicable standard. For determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the Administrator's approval, be determined using the arithmetic mean of the results of the two other runs.

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(2) Contents of report (electronic or paper submitted copy). Unless otherwise specified in a relevant standard or test method, or as otherwise approved by the Administrator in writing, the report for a performance test shall include the elements identified in paragraphs (f)(2)(i) through (vi) of this section.

(i) General identification information for the facility including a mailing address, the physical address, the owner or operator or responsible official (where applicable) and his/her email address, and the appropriate Federal Registry System (FRS) number for the facility.

(ii) Purpose of the test including the applicable regulation(s) requiring the test, the pollutant(s) and other parameters being measured, the applicable emission standard and any process parameter component, and a brief process description.

(iii) Description of the emission unit tested including fuel burned, control devices, and vent characteristics; the appropriate source classification code (SCC); the permitted maximum process rate (where applicable); and the sampling location.

(iv) Description of sampling and analysis procedures used and any modifications to standard procedures, quality assurance procedures and results, record of process operating conditions that demonstrate the applicable test conditions are met, and values for any operating parameters for which limits were being set during the test.

(v) Where a test method requires you record or report, the following shall be included: Record of preparation of standards, record of calibrations, raw data sheets for field sampling, raw data sheets for field and laboratory analyses, chain-of-custody documentation, and example calculations for reported results.

(vi) Identification of the company conducting the performance test including the primary office address, telephone number, and the contact for this test program including his/her email address.

(g) The performance testing shall include a test method performance audit (PA) during the performance test. The PAs consist of blind audit samples supplied by an accredited audit sample provider and analyzed during the performance test in order to provide a measure of test data bias. Gaseous audit samples are designed to audit the performance of the sampling system as well as the analytical system and must be collected by the sampling system during the compliance test just as the compliance samples are collected. If a liquid or solid audit sample is designed to audit the sampling system, it must also be collected by the sampling system during the compliance test. If multiple sampling systems or sampling trains are used during the compliance test for any of the test methods, the tester is only required to use one of the sampling systems per method to collect the audit sample. The audit sample must be analyzed by the same analyst using the same analytical reagents and analytical system and at the same time as the compliance samples. Retests are required when there is a failure to produce acceptable results for an audit sample. However, if the audit results do not affect the compliance or noncompliance status of the affected facility, the compliance authority may waive the reanalysis requirement, further audits, or retests and accept the results of the compliance test. Acceptance of the test results shall constitute a waiver of the reanalysis requirement, further audits, or retests. The compliance authority may also use the audit sample failure and the compliance test results as evidence to determine the compliance or noncompliance status of the affected facility. A blind audit sample is a sample whose value is known only to the sample provider and is not revealed to the tested facility until after they report the measured value of the audit sample. For pollutants that exist in the gas phase at ambient temperature, the audit sample shall consist of an appropriate concentration of the pollutant in air or nitrogen that can be introduced into the sampling system of the test method at or near the same entry point as a sample from the emission source. If no gas phase audit samples are available, an acceptable alternative is a sample of the pollutant in the same matrix that would be produced when the sample is recovered from the sampling system as required by the test method. For samples that exist only in a liquid or solid form at ambient temperature, the audit sample shall consist of an appropriate concentration of the pollutant in the same matrix that would be produced when the sample is recovered from the sampling system as required by the test method. An accredited audit sample provider (AASP) is an organization that has been accredited to prepare audit samples by an independent, third party accrediting body.

(1) The source owner, operator, or representative of the tested facility shall obtain an audit sample, if commercially available, from an AASP for each test method used for regulatory compliance purposes. No audit samples are required for the following test methods: Methods 3C of Appendix A-3 of Part 60, Methods 6C, 7E, 9, and 10 of Appendix A-4 of Part 60, Method 18 of Appendix A-6 of Part 60, Methods 20, 22, and 25A of Appendix A-7 of Part 60, and Methods 303, 318, 320, and 321 of Appendix A of Part 63. If multiple sources at a single facility are tested during a compliance test event, only one audit sample is required for each method used during a compliance test. The compliance authority responsible for the compliance test may waive the requirement to include an audit sample if they believe that an audit sample is not necessary. "Commercially available" means that two or more independent AASPs have blind audit samples available for purchase. If the

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source owner, operator, or representative cannot find an audit sample for a specific method, the owner, operator, or representative shall consult the EPA Web site at the following URL, <http://www.epa.gov/ttn/emc>, to confirm whether there is a source that can supply an audit sample for that method. If the EPA Web site does not list an available audit sample at least 60 days prior to the beginning of the compliance test, the source owner, operator, or representative shall not be required to include an audit sample as part of the quality assurance program for the compliance test. When ordering an audit sample, the source, operator, or representative shall give the sample provider an estimate for the concentration of each pollutant that is emitted by the source or the estimated concentration of each pollutant based on the permitted level and the name, address, and phone number of the compliance authority. The source owner, operator, or representative shall report the results for the audit sample along with a summary of the emission test results for the audited pollutant to the compliance authority and shall report the results of the audit sample to the AASP. The source owner, operator, or representative shall make both reports at the same time and in the same manner or shall report to the compliance authority first and then report to the AASP. If the method being audited is a method that allows the samples to be analyzed in the field and the tester plans to analyze the samples in the field, the tester may analyze the audit samples prior to collecting the emission samples provided a representative of the compliance authority is present at the testing site. The tester may request and the compliance authority may grant a waiver to the requirement that a representative of the compliance authority must be present at the testing site during the field analysis of an audit sample. The source owner, operator, or representative may report the results of the audit sample to the compliance authority and report the results of the audit sample to the AASP prior to collecting any emission samples. The test protocol and final test report shall document whether an audit sample was ordered and utilized and the pass/fail results as applicable.

(2) An AASP shall have and shall prepare, analyze, and report the true value of audit samples in accordance with a written technical criteria document that describes how audit samples will be prepared and distributed in a manner that will ensure the integrity of the audit sample program. An acceptable technical criteria document shall contain standard operating procedures for all of the following operations:

(i) Preparing the sample;

(ii) Confirming the true concentration of the sample;

(iii) Defining the acceptance limits for the results from a well-qualified tester. This procedure must use well established statistical methods to analyze historical results from well qualified testers. The acceptance limits shall be set so that there is 95 percent confidence that 90 percent of well qualified labs will produce future results that are within the acceptance limit range.

(iv) Providing the opportunity for the compliance authority to comment on the selected concentration level for an audit sample;

(v) Distributing the sample to the user in a manner that guarantees that the true value of the sample is unknown to the user;

(vi) Recording the measured concentration reported by the user and determining if the measured value is within acceptable limits;

(vii) The AASP shall report the results from each audit sample in a timely manner to the compliance authority and then to the source owner, operator, or representative. The AASP shall make both reports at the same time and in the same manner or shall report to the compliance authority first and then report to the source owner, operator, or representative. The results shall include the name of the facility tested, the date on which the compliance test was conducted, the name of the company performing the sample collection, the name of the company that analyzed the compliance samples including the audit sample, the measured result for the audit sample, and whether the testing company passed or failed the audit. The AASP shall report the true value of the audit sample to the compliance authority. The AASP may report the true value to the source owner, operator, or representative if the AASP's operating plan ensures that no laboratory will receive the same audit sample twice.

(viii) Evaluating the acceptance limits of samples at least once every two years to determine in cooperation with the voluntary consensus standard body if they should be changed;

(ix) Maintaining a database, accessible to the compliance authorities, of results from the audit that shall include the name of the facility tested, the date on which the compliance test was conducted, the name of the company performing the sample collection, the name of the company that analyzed the compliance samples including the audit sample, the measured result for the audit sample, the true value of the audit sample, the acceptance range for the measured value, and whether the testing company passed or failed the audit.

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(3) The accrediting body shall have a written technical criteria document that describes how it will ensure that the AASP is operating in accordance with the AASP technical criteria document that describes how audit samples are to be prepared and distributed. This document shall contain standard operating procedures for all of the following operations:

- (i) Checking audit samples to confirm their true value as reported by the AASP;
- (ii) Performing technical systems audits of the AASP's facilities and operating procedures at least once every two years;
- (iii) Providing standards for use by the voluntary consensus standard body to approve the accrediting body that will credit the audit sample providers.

(4) The technical criteria documents for the accredited sample providers and the accrediting body shall be developed through a public process guided by a voluntary consensus standards body (VCSB). The VCSB shall operate in accordance with the procedures and requirements in the Office of Management and Budget Circular A-119. A copy of Circular A-119 is available upon request by writing the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW., Washington, DC 20503, by calling (202) 395-6880 or downloading online at <http://standards.gov/standards.gov/a119.cfm>. The VCSB shall approve all accrediting bodies. The Administrator will review all technical criteria documents. If the technical criteria documents do not meet the minimum technical requirements in paragraphs (g)(2) through (4) of this section, the technical criteria documents are not acceptable and the proposed audit sample program is not capable of producing audit samples of sufficient quality to be used in a compliance test. All acceptable technical criteria documents shall be posted on the EPA Web site at the following URL, <http://www.epa.gov/tnaonline>.

(h) Unless otherwise specified in the applicable subpart, each test location must be verified to be free of cyclonic flow and evaluated for the existence of emission gas stratification and the required number of sampling traverse points. If other procedures are not specified in the applicable subpart to the regulations, use the appropriate procedures in Method 1 to check for cyclonic flow and Method 7E to evaluate emission gas stratification and selection of sampling points.

(i) Whenever the use of multiple calibration gases is required by a test method, performance specification, or quality assurance procedure in a part 60 standard or appendix, Method 205 of 40 CFR part 51, appendix M of this chapter, "Verification of Gas Dilution Systems for Field Instrument Calibrations," may be used.

[36 FR 24877, Dec. 23, 1971, as amended at 39 FR 9314, Mar. 8, 1974; 42 FR 57126, Nov. 1, 1977; 44 FR 33612, June 11, 1979; 54 FR 6662, Feb. 14, 1989; 54 FR 21344, May 17, 1989; 64 FR 7463, Feb. 12, 1999; 72 FR 27442, May 16, 2007; 75 FR 55646, Sept. 13, 2010; 79 FR 11241, Feb. 27, 2014; 81 FR 59809, Aug. 30, 2016]

§60.9 Availability of information.

The availability to the public of information provided to, or otherwise obtained by, the Administrator under this part shall be governed by part 2 of this chapter. (Information submitted voluntarily to the Administrator for the purposes of §§60.5 and 60.6 is governed by §§2.201 through 2.213 of this chapter and not by §2.301 of this chapter.)

§60.10 State authority.

The provisions of this part shall not be construed in any manner to preclude any State or political subdivision thereof from:

- (a) Adopting and enforcing any emission standard or limitation applicable to an affected facility, provided that such emission standard or limitation is not less stringent than the standard applicable to such facility.
- (b) Requiring the owner or operator of an affected facility to obtain permits, licenses, or approvals prior to initiating construction, modification, or operation of such facility.

§60.11 Compliance with standards and maintenance requirements.

(a) Compliance with standards in this part, other than opacity standards, shall be determined in accordance with performance tests established by §60.8, unless otherwise specified in the applicable standard.

(b) Compliance with opacity standards in this part shall be determined by conducting observations in accordance with Method 9 in appendix A of this part, any alternative method that is approved by the Administrator, or as provided in paragraph (c)(5) of this section. For purposes of determining initial compliance, the minimum total time of observations shall be 3 hours (30 6-minute averages) for the performance test or other set of observations (meaning those fugitive-type emission sources subject only to an opacity standard).

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(c) The opacity standards set forth in this part shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard.

(d) At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

(e)(1) For the purpose of demonstrating initial compliance, opacity observations shall be conducted concurrently with the initial performance test required in §60.8 unless one of the following conditions apply. If no performance test under §60.8 is required, then opacity observations shall be conducted within 60 days after achieving the maximum production rate at which the affected facility will be operated but no later than 180 days after initial startup of the facility. If visibility or other conditions prevent the opacity observations from being conducted concurrently with the initial performance test required under §60.8, the source owner or operator shall reschedule the opacity observations as soon after the initial performance test as possible, but not later than 30 days thereafter, and shall advise the Administrator of the rescheduled date. In these cases, the 30-day prior notification to the Administrator required in §60.7(a)(6) shall be waived. The rescheduled opacity observations shall be conducted (to the extent possible) under the same operating conditions that existed during the initial performance test conducted under §60.8. The visible emissions observer shall determine whether visibility or other conditions prevent the opacity observations from being made concurrently with the initial performance test in accordance with procedures contained in Method 9 of appendix B of this part. Opacity readings of portions of plumes which contain condensed, uncombined water vapor shall not be used for purposes of determining compliance with opacity standards. The owner or operator of an affected facility shall make available, upon request by the Administrator, such records as may be necessary to determine the conditions under which the visual observations were made and shall provide evidence indicating proof of current visible observer certification. Except as provided in paragraph (e)(5) of this section, the results of continuous monitoring by transmissometer which indicate that the opacity at the time visual observations were made was not in excess of the standard are probative but not conclusive evidence of the actual opacity of an emission, provided that the source shall meet the burden of proving that the instrument used meets (at the time of the alleged violation) Performance Specification 1 in appendix B of this part, has been properly maintained and (at the time of the alleged violation) that the resulting data have not been altered in any way.

(2) Except as provided in paragraph (e)(3) of this section, the owner or operator of an affected facility to which an opacity standard in this part applies shall conduct opacity observations in accordance with paragraph (b) of this section, shall record the opacity of emissions, and shall report to the Administrator the opacity results along with the results of the initial performance test required under §60.8. The inability of an owner or operator to secure a visible emissions observer shall not be considered a reason for not conducting the opacity observations concurrent with the initial performance test.

(3) The owner or operator of an affected facility to which an opacity standard in this part applies may request the Administrator to determine and to record the opacity of emissions from the affected facility during the initial performance test and at such times as may be required. The owner or operator of the affected facility shall report the opacity results. Any request to the Administrator to determine and to record the opacity of emissions from an affected facility shall be included in the notification required in §60.7(a)(6). If, for some reason, the Administrator cannot determine and record the opacity of emissions from the affected facility during the performance test, then the provisions of paragraph (e)(1) of this section shall apply.

(4) An owner or operator of an affected facility using a continuous opacity monitor (transmissometer) shall record the monitoring data produced during the initial performance test required by §60.8 and shall furnish the Administrator a written report of the monitoring results along with Method 9 and §60.8 performance test results.

(5) An owner or operator of an affected facility subject to an opacity standard may submit, for compliance purposes, continuous opacity monitoring system (COMS) data results produced during any performance test required under §60.8 in lieu of Method 9 observation data. If an owner or operator elects to submit COMS data for compliance with the opacity standard, he shall notify the Administrator of that decision, in writing, at least 30 days before any performance test required under §60.8 is conducted. Once the owner or operator of an affected facility has notified the Administrator to that effect, the COMS data results will be used to determine opacity compliance during subsequent tests required under §60.8 until the owner or operator notifies the Administrator, in writing, to the contrary. For the purpose of determining compliance with the opacity standard during a performance test required under §60.8 using COMS data, the minimum total time of COMS data

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collection shall be averages of all 6-minute continuous periods within the duration of the mass emission performance test. Results of the COMS opacity determinations shall be submitted along with the results of the performance test required under §60.8. The owner or operator of an affected facility using a COMS for compliance purposes is responsible for demonstrating that the COMS meets the requirements specified in §60.13(c) of this part, that the COMS has been properly maintained and operated, and that the resulting data have not been altered in any way. If COMS data results are submitted for compliance with the opacity standard for a period of time during which Method 9 data indicates noncompliance, the Method 9 data will be used to determine compliance with the opacity standard.

(6) Upon receipt from an owner or operator of the written reports of the results of the performance tests required by §60.8, the opacity observation results and observer certification required by §60.11(e)(1), and the COMS results, if applicable, the Administrator will make a finding concerning compliance with opacity and other applicable standards. If COMS data results are used to comply with an opacity standard, only those results are required to be submitted along with the performance test results required by §60.8. If the Administrator finds that an affected facility is in compliance with all applicable standards for which performance tests are conducted in accordance with §60.8 of this part but during the time such performance tests are being conducted fails to meet any applicable opacity standard, he shall notify the owner or operator and advise him that he may petition the Administrator within 10 days of receipt of notification to make appropriate adjustment to the opacity standard for the affected facility.

(7) The Administrator will grant such a petition upon a demonstration by the owner or operator that the affected facility and associated air pollution control equipment was operated and maintained in a manner to minimize the opacity of emissions during the performance tests; that the performance tests were performed under the conditions established by the Administrator; and that the affected facility and associated air pollution control equipment were incapable of being adjusted or operated to meet the applicable opacity standard.

(8) The Administrator will establish an opacity standard for the affected facility meeting the above requirements at a level at which the source will be able, as indicated by the performance and opacity tests, to meet the opacity standard at all times during which the source is meeting the mass or concentration emission standard. The Administrator will promulgate the new opacity standard in the FEDERAL REGISTER.

(f) Special provisions set forth under an applicable subpart shall supersede any conflicting provisions in paragraphs (a) through (e) of this section.

(g) For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in this part, nothing in this part shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

[38 FR 28565, Oct. 15, 1973, as amended at 39 FR 39873, Nov. 12, 1974; 43 FR 8800, Mar. 3, 1978; 45 FR 23379, Apr. 4, 1980; 48 FR 48335, Oct. 18, 1983; 50 FR 53113, Dec. 27, 1985; 51 FR 1790, Jan. 15, 1986; 52 FR 9781, Mar. 26, 1987; 62 FR 8328, Feb. 24, 1997; 65 FR 61749, Oct. 17, 2000]

§60.12 Circumvention.

No owner or operator subject to the provisions of this part shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.

[39 FR 9314, Mar. 8, 1974]

§60.13 Monitoring requirements.

(a) For the purposes of this section, all continuous monitoring systems required under applicable subparts shall be subject to the provisions of this section upon promulgation of performance specifications for continuous monitoring systems under appendix B to this part and, if the continuous monitoring system is used to demonstrate compliance with emission limits on a continuous basis, appendix F to this part, unless otherwise specified in an applicable subpart or by the Administrator. Appendix F is applicable December 4, 1987.

(b) All continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests under §60.8. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device.

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(c) If the owner or operator of an affected facility elects to submit continuous opacity monitoring system (COMS) data for compliance with the opacity standard as provided under §60.11(c)(5), he shall conduct a performance evaluation of the COMS as specified in Performance Specification 1, appendix B, of this part before the performance test required under §60.8 is conducted. Otherwise, the owner or operator of an affected facility shall conduct a performance evaluation of the COMS or continuous emission monitoring system (CEMS) during any performance test required under §60.8 or within 30 days thereafter in accordance with the applicable performance specification in appendix B of this part. The owner or operator of an affected facility shall conduct COMS or CEMS performance evaluations at such other times as may be required by the Administrator under section 114 of the Act.

(1) The owner or operator of an affected facility using a COMS to determine opacity compliance during any performance test required under §60.8 and as described in §60.11(e)(5) shall furnish the Administrator two or, upon request, more copies of a written report of the results of the COMS performance evaluation described in paragraph (c) of this section at least 10 days before the performance test required under §60.8 is conducted.

(2) Except as provided in paragraph (c)(1) of this section, the owner or operator of an affected facility shall furnish the Administrator within 60 days of completion two or, upon request, more copies of a written report of the results of the performance evaluation.

(d)(1) Owners and operators of a CEMS installed in accordance with the provisions of this part, must check the zero (or low level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts at least once daily in accordance with a written procedure. The zero and span must, as a minimum, be adjusted whenever either the 24-hour zero drift or the 24-hour span drift exceeds two times the limit of the applicable performance specification in appendix B of this part. The system must allow the amount of the excess zero and span drift to be recorded and quantified whenever specified. Owners and operators of a COMS installed in accordance with the provisions of this part, must automatically, intrinsic to the opacity monitor, check the zero and upscale (span) calibration drifts at least once daily. For a particular COMS, the acceptable range of zero and upscale calibration materials is as defined in the applicable version of PS-1 in appendix B of this part. For a COMS, the optical surfaces, exposed to the effluent gases, must be cleaned before performing the zero and upscale drift adjustments, except for systems using automatic zero adjustments. The optical surfaces must be cleaned when the cumulative automatic zero compensation exceeds 4 percent opacity.

(2) Unless otherwise approved by the Administrator, the following procedures must be followed for a COMS. Minimum procedures must include an automated method for producing a simulated zero opacity condition and an upscale opacity condition using a certified neutral density filter or other related technique to produce a known obstruction of the light beam. Such procedures must provide a system check of all active analyzer internal optics with power or curvature, all active electronic circuitry including the light source and photodetector assembly, and electronic or electro-mechanical systems and hardware and or software used during normal measurement operation.

(e) Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under paragraph (d) of this section, all continuous monitoring systems shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:

(1) All continuous monitoring systems referenced by paragraph (c) of this section for measuring opacity of emissions shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(2) All continuous monitoring systems referenced by paragraph (c) of this section for measuring emissions, except opacity, shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

(f) All continuous monitoring systems or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility are obtained. Additional procedures for location of continuous monitoring systems contained in the applicable Performance Specifications of appendix B of this part shall be used.

(g) When the effluents from a single affected facility or two or more affected facilities subject to the same emission standards are combined before being released to the atmosphere, the owner or operator may install applicable continuous monitoring systems on each effluent or on the combined effluent. When the affected facilities are not subject to the same emission standards, separate continuous monitoring systems shall be installed on each effluent. When the effluent from one affected facility is released to the atmosphere through more than one point, the owner or operator shall install an applicable continuous monitoring system on each separate effluent unless the installation of fewer systems is approved by the Administrator. When more than one continuous monitoring system is used to measure the emissions from one affected

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facility (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required from each continuous monitoring system.

(h)(1) Owners or operators of all continuous monitoring systems for measurement of opacity shall reduce all data to 6-minute averages and for continuous monitoring systems other than opacity to 1-hour averages for time periods as defined in §60.2. Six-minute opacity averages shall be calculated from 36 or more data points equally spaced over each 6-minute period.

(2) For continuous monitoring systems other than opacity, 1-hour averages shall be computed as follows, except that the provisions pertaining to the validation of partial operating hours are only applicable for affected facilities that are required by the applicable subpart to include partial hours in the emission calculations:

(i) Except as provided under paragraph (h)(2)(iii) of this section, for a full operating hour (any clock hour with 60 minutes of unit operation), at least four valid data points are required to calculate the hourly average, i.e., one data point in each of the 15-minute quadrants of the hour.

(ii) Except as provided under paragraph (h)(2)(iii) of this section, for a partial operating hour (any clock hour with less than 60 minutes of unit operation), at least one valid data point in each 15-minute quadrant of the hour in which the unit operates is required to calculate the hourly average.

(iii) For any operating hour in which required maintenance or quality-assurance activities are performed:

(A) If the unit operates in two or more quadrants of the hour, a minimum of two valid data points, separated by at least 15 minutes, is required to calculate the hourly average; or

(B) If the unit operates in only one quadrant of the hour, at least one valid data point is required to calculate the hourly average.

(iv) If a daily calibration error check is failed during any operating hour, all data for that hour shall be invalidated, unless a subsequent calibration error test is passed in the same hour and the requirements of paragraph (h)(2)(iii) of this section are met, based solely on valid data recorded after the successful calibration.

(v) For each full or partial operating hour, all valid data points shall be used to calculate the hourly average.

(vi) Except as provided under paragraph (h)(2)(vii) of this section, data recorded during periods of continuous monitoring system breakdown, repair, calibration checks, and zero and span adjustments shall not be included in the data averages computed under this paragraph.

(vii) Owners and operators complying with the requirements of §60.7(f)(1) or (2) must include any data recorded during periods of monitor breakdown or malfunction in the data averages.

(viii) When specified in an applicable subpart, hourly averages for certain partial operating hours shall not be computed or included in the emission averages (e.g. hours with 30 minutes of unit operation under §60.47b(d)).

(ix) Either arithmetic or integrated averaging of all data may be used to calculate the hourly averages. The data may be recorded in reduced or nonreduced form (e.g., ppm pollutant and percent O₂ or ng/l of pollutant).

(3) All excess emissions shall be converted into units of the standard using the applicable conversion procedures specified in the applicable subpart. After conversion into units of the standard, the data may be rounded to the same number of significant digits used in the applicable subpart to specify the emission limit.

(i) After receipt and consideration of written application, the Administrator may approve alternatives to any monitoring procedures or requirements of this part including, but not limited to the following:

(1) Alternative monitoring requirements when installation of a continuous monitoring system or monitoring device specified by this part would not provide accurate measurements due to liquid water or other interferences caused by substances in the effluent gases.

(2) Alternative monitoring requirements when the affected facility is infrequently operated.

(3) Alternative monitoring requirements to accommodate continuous monitoring systems that require additional measurements to correct for stack moisture conditions.

(4) Alternative locations for installing continuous monitoring systems or monitoring devices when the owner or operator can demonstrate that installation at alternate locations will enable accurate and representative measurements.

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(5) Alternative methods of converting pollutant concentration measurements to units of the standards.

(6) Alternative procedures for performing daily checks of zero and span drift that do not involve use of span gases or test cells.

(7) Alternatives to the A.S.T.M. test methods or sampling procedures specified by any subpart.

(8) Alternative continuous monitoring systems that do not meet the design or performance requirements in Performance Specification 1, appendix B, but adequately demonstrate a definite and consistent relationship between its measurements and the measurements of opacity by a system complying with the requirements in Performance Specification 1. The Administrator may require that such demonstration be performed for each affected facility.

(9) Alternative monitoring requirements when the effluent from a single affected facility or the combined effluent from two or more affected facilities is released to the atmosphere through more than one point.

(j) An alternative to the relative accuracy (RA) test specified in Performance Specification 2 of appendix B may be requested as follows:

(1) An alternative to the reference method tests for determining RA is available for sources with emission rates demonstrated to be less than 50 percent of the applicable standard. A source owner or operator may petition the Administrator to waive the RA test in Section 8.4 of Performance Specification 2 and substitute the procedures in Section 16.0 if the results of a performance test conducted according to the requirements in §60.8 of this subpart or other tests performed following the criteria in §60.8 demonstrate that the emission rate of the pollutant of interest in the units of the applicable standard is less than 50 percent of the applicable standard. For sources subject to standards expressed as control efficiency levels, a source owner or operator may petition the Administrator to waive the RA test and substitute the procedures in Section 16.0 of Performance Specification 2 if the control device exhaust emission rate is less than 50 percent of the level needed to meet the control efficiency requirement. The alternative procedures do not apply if the continuous emission monitoring system is used to determine compliance continuously with the applicable standard. The petition to waive the RA test shall include a detailed description of the procedures to be applied. Included shall be location and procedure for conducting the alternative, the concentration or response levels of the alternative RA materials, and the other equipment checks included in the alternative procedure. The Administrator will review the petition for completeness and applicability. The determination to grant a waiver will depend on the intended use of the CEMS data (e.g., data collection purposes other than NSPS) and may require specifications more stringent than in Performance Specification 2 (e.g., the applicable emission limit is more stringent than NSPS).

(2) The waiver of a CEMS RA test will be reviewed and may be rescinded at such time, following successful completion of the alternative RA procedure, that the CEMS data indicate that the source emissions are approaching the level. The criterion for reviewing the waiver is the collection of CEMS data showing that emissions have exceeded 70 percent of the applicable standard for seven, consecutive, averaging periods as specified by the applicable regulation(s). For sources subject to standards expressed as control efficiency levels, the criterion for reviewing the waiver is the collection of CEMS data showing that exhaust emissions have exceeded 70 percent of the level needed to meet the control efficiency requirement for seven, consecutive, averaging periods as specified by the applicable regulation(s) [e.g., §60.45(g) (2) and (3), §60.73(e), and §60.84(e)]. It is the responsibility of the source operator to maintain records and determine the level of emissions relative to the criterion on the waiver of RA testing. If this criterion is exceeded, the owner or operator must notify the Administrator within 10 days of such occurrence and include a description of the nature and cause of the increasing emissions. The Administrator will review the notification and may rescind the waiver and require the owner or operator to conduct a RA test of the CEMS as specified in Section 8.4 of Performance Specification 2.

[40 FR 46255, Oct. 6, 1975; 40 FR 59205, Dec. 22, 1975, as amended at 41 FR 35185, Aug. 20, 1976; 48 FR 13326, Mar. 30, 1983; 48 FR 23610, May 25, 1983; 48 FR 32986, July 20, 1983; 52 FR 9782, Mar. 26, 1987; 52 FR 17555, May 11, 1987; 52 FR 21007, June 4, 1987; 64 FR 7463, Feb. 12, 1999; 65 FR 48920, Aug. 10, 2000; 65 FR 61749, Oct. 17, 2000; 66 FR 44980, Aug. 27, 2001; 71 FR 31102, June 1, 2006; 72 FR 32714, June 13, 2007]

§60.14 Modification.

(a) Except as provided under paragraphs (e) and (f) of this section, any physical or operational change to an existing facility which results in an increase in the emission rate to the atmosphere of any pollutant to which a standard applies shall be considered a modification within the meaning of section 111 of the Act. Upon modification, an existing facility shall become an affected facility for each pollutant to which a standard applies and for which there is an increase in the emission rate to the atmosphere.

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(b) Emission rate shall be expressed as kg/hr of any pollutant discharged into the atmosphere for which a standard is applicable. The Administrator shall use the following to determine emission rate:

(1) Emission factors as specified in the latest issue of "Compilation of Air Pollutant Emission Factors," EPA Publication No. AP-42, or other emission factors determined by the Administrator to be superior to AP-42 emission factors, in cases where utilization of emission factors demonstrates that the emission level resulting from the physical or operational change will either clearly increase or clearly not increase.

(2) Material balances, continuous monitor data, or manual emission tests in cases where utilization of emission factors as referenced in paragraph (b)(1) of this section does not demonstrate to the Administrator's satisfaction whether the emission level resulting from the physical or operational change will either clearly increase or clearly not increase, or where an owner or operator demonstrates to the Administrator's satisfaction that there are reasonable grounds to dispute the result obtained by the Administrator utilizing emission factors as referenced in paragraph (b)(1) of this section. When the emission rate is based on results from manual emission tests or continuous monitoring systems, the procedures specified in appendix C of this part shall be used to determine whether an increase in emission rate has occurred. Tests shall be conducted under such conditions as the Administrator shall specify to the owner or operator based on representative performance of the facility. At least three valid test runs must be conducted before and at least three after the physical or operational change. All operating parameters which may affect emissions must be held constant to the maximum feasible degree for all test runs.

(c) The addition of an affected facility to a stationary source as an expansion to that source or as a replacement for an existing facility shall not by itself bring within the applicability of this part any other facility within that source.

(d) [Reserved]

(e) The following shall not, by themselves, be considered modifications under this part:

(1) Maintenance, repair, and replacement which the Administrator determines to be routine for a source category, subject to the provisions of paragraph (c) of this section and §60.15.

(2) An increase in production rate of an existing facility, if that increase can be accomplished without a capital expenditure on that facility.

(3) An increase in the hours of operation.

(4) Use of an alternative fuel or raw material if, prior to the date any standard under this part becomes applicable to that source type, as provided by §60.1, the existing facility was designed to accommodate that alternative use. A facility shall be considered to be designed to accommodate an alternative fuel or raw material if that use could be accomplished under the facility's construction specifications as amended prior to the change. Conversion to coal required for energy considerations, as specified in section 111(a)(8) of the Act, shall not be considered a modification.

(5) The addition or use of any system or device whose primary function is the reduction of air pollutants, except when an emission control system is removed or is replaced by a system which the Administrator determines to be less environmentally beneficial.

(6) The relocation or change in ownership of an existing facility.

(f) Special provisions set forth under an applicable subpart of this part shall supersede any conflicting provisions of this section.

(g) Within 180 days of the completion of any physical or operational change subject to the control measures specified in paragraph (a) of this section, compliance with all applicable standards must be achieved.

(h) No physical change, or change in the method of operation, at an existing electric utility steam generating unit shall be treated as a modification for the purposes of this section provided that such change does not increase the maximum hourly emissions of any pollutant regulated under this section above the maximum hourly emissions achievable at that unit during the 5 years prior to the change.

(i) Repowering projects that are awarded funding from the Department of Energy as permanent clean coal technology demonstration projects (or similar projects funded by EPA) are exempt from the requirements of this section provided that such change does not increase the maximum hourly emissions of any pollutant regulated under this section above the maximum hourly emissions achievable at that unit during the five years prior to the change.

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(j)(1) Repowering projects that qualify for an extension under section 409(b) of the Clean Air Act are exempt from the requirements of this section, provided that such change does not increase the actual hourly emissions of any pollutant regulated under this section above the actual hourly emissions achievable at that unit during the 5 years prior to the change.

(2) This exemption shall not apply to any new unit that:

(i) Is designated as a replacement for an existing unit;

(ii) Qualifies under section 409(b) of the Clean Air Act for an extension of an emission limitation compliance date under section 405 of the Clean Air Act; and

(iii) Is located at a different site than the existing unit.

(k) The installation, operation, cessation, or removal of a temporary clean coal technology demonstration project is exempt from the requirements of this section. A temporary clean coal control technology demonstration project, for the purposes of this section is a clean coal technology demonstration project that is operated for a period of 5 years or less, and which complies with the State implementation plan for the State in which the project is located and other requirements necessary to attain and maintain the national ambient air quality standards during the project and after it is terminated.

(l) The reactivation of a very clean coal-fired electric utility steam generating unit is exempt from the requirements of this section.

[40 FR 58419, Dec. 16, 1975, as amended at 43 FR 34347, Aug. 3, 1978; 45 FR 5617, Jan. 23, 1980; 57 FR 32339, July 21, 1992; 65 FR 61750, Oct. 17, 2000]

§60.15 Reconstruction.

(a) An existing facility, upon reconstruction, becomes an affected facility, irrespective of any change in emission rate.

(b) "Reconstruction" means the replacement of components of an existing facility to such an extent that:

(1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, and

(2) It is technologically and economically feasible to meet the applicable standards set forth in this part.

(c) "Fixed capital cost" means the capital needed to provide all the depreciable components.

(d) If an owner or operator of an existing facility proposes to replace components, and the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, he shall notify the Administrator of the proposed replacements. The notice must be postmarked 60 days (or as soon as practicable) before construction of the replacements is commenced and must include the following information:

(1) Name and address of the owner or operator.

(2) The location of the existing facility.

(3) A brief description of the existing facility and the components which are to be replaced.

(4) A description of the existing air pollution control equipment and the proposed air pollution control equipment.

(5) An estimate of the fixed capital cost of the replacements and of constructing a comparable entirely new facility.

(6) The estimated life of the existing facility after the replacements.

(7) A discussion of any economic or technical limitations the facility may have in complying with the applicable standards of performance after the proposed replacements.

(e) The Administrator will determine, within 30 days of the receipt of the notice required by paragraph (d) of this section and any additional information he may reasonably require, whether the proposed replacement constitutes reconstruction.

(f) The Administrator's determination under paragraph (e) shall be based on:

(1) The fixed capital cost of the replacements in comparison to the fixed capital cost that would be required to construct a comparable entirely new facility;

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- (2) The estimated life of the facility after the replacements compared to the life of a comparable entirely new facility;
- (3) The extent to which the components being replaced cause or contribute to the emissions from the facility; and
- (4) Any economic or technical limitations on compliance with applicable standards of performance which are inherent in the proposed replacements.

(g) Individual subparts of this part may include specific provisions which refine and delimit the concept of reconstruction set forth in this section.

[40 FR 58420, Dec. 16, 1975]

§60.16 Priority list.

PRIORITIZED MAJOR SOURCE CATEGORIES

Priority Number ¹	Source Category
1.	Synthetic Organic Chemical Manufacturing Industry (SOCMI) and Volatile Organic Liquid Storage Vessels and Handling Equipment
	(a) SOCMI unit processes
	(b) Volatile organic liquid (VOL) storage vessels and handling equipment
	(c) SOCMI fugitive sources
	(d) SOCMI secondary sources
2.	Industrial Surface Coating: Cans
3.	Petroleum Refineries: Fugitive Sources
4.	Industrial Surface Coating: Paper
5.	Dry Cleaning
	(a) Perchloroethylene
	(b) Petroleum solvent
6.	Graphic Arts
7.	Polymers and Resins: Acrylic Resins
8.	Mineral Wool (Deleted)
9.	Stationary Internal Combustion Engines
10.	Industrial Surface Coating: Fabric
11.	Industrial-Commercial-Institutional Steam Generating Units.
12.	Incineration: Non-Municipal (Deleted)
13.	Non-Metallic Mineral Processing
14.	Metallic Mineral Processing
15.	Secondary Copper (Deleted)
16.	Phosphate Rock Preparation

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17.	Foundries: Steel and Gray Iron
18.	Polymers and Resins: Polyethylene
19.	Charcoal Production
20.	Synthetic Rubber
	(a) Tire manufacture
	(b) SBR production
21.	Vegetable Oil
22.	Industrial Surface Coating: Metal Coil
23.	Petroleum Transportation and Marketing
24.	By-Product Coke Ovens
25.	Synthetic Fibers
26.	Plywood Manufacture
27.	Industrial Surface Coating: Automobiles
28.	Industrial Surface Coating: Large Appliances
29.	Crude Oil and Natural Gas Production
30.	Secondary Aluminum
31.	Potash (Deleted)
32.	Lightweight Aggregate Industry: Clay, Shale, and Slate ²
33.	Glass
34.	Gypsum
35.	Sodium Carbonate
36.	Secondary Zinc (Deleted)
37.	Polymers and Resins: Phenolic
38.	Polymers and Resins: Urea-Melamine
39.	Ammonia (Deleted)
40.	Polymers and Resins: Polystyrene
41.	Polymers and Resins: ABS-SAN Resins
42.	Fiberglass
43.	Polymers and Resins: Polypropylene
44.	Textile Processing
45.	Asphalt Processing and Asphalt Roofing Manufacture
46.	Brick and Related Clay Products

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47.	Ceramic Clay Manufacturing (Deleted)
48.	Ammonium Nitrate Fertilizer
49.	Castable Refractories (Deleted)
50.	Borax and Boric Acid (Deleted)
51.	Polymers and Resins: Polyester Resins
52.	Ammonium Sulfate
53.	Starch
54.	Perlite
55.	Phosphoric Acid: Thermal Process (Deleted)
56.	Uranium Refining
57.	Animal Feed Defluorination (Deleted)
58.	Urea (for fertilizer and polymers)
59.	Detergent (Deleted)
<i>Other Source Categories</i>	
Lead acid battery manufacture ²	
Organic solvent cleaning ³	
Industrial surface coating: metal furniture ³	
Stationary gas turbines ⁴	
Municipal solid waste landfills ⁴	

¹Low numbers have highest priority, e.g., No. 1 is high priority, No. 59 is low priority.

²Formerly titled "Sintering: Clay and Fly Ash".

³Minor source category, but included on list since an NSPS is being developed for that source category.

⁴Not prioritized, since an NSPS for this major source category has already been promulgated.

[47 FR 951, Jan 8, 1982, as amended at 47 FR 31876, July 23, 1982; 51 FR 42796, Nov. 25, 1986; 52 FR 11428, Apr. 8, 1987; 61 FR 9919, Mar. 12, 1996]

§60.17 Incorporations by reference.

The materials listed below are incorporated by reference in the corresponding sections noted. These incorporations by reference were approved by the Director of the Federal Register on the date listed. These materials are incorporated as they exist on the date of the approval, and a notice of any change in these materials will be published in the FEDERAL REGISTER. The materials are available for purchase at the corresponding address noted below, and all are available for inspection at the Library (C267-01), U.S. EPA, Research Triangle Park, NC or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

(a) The following materials are available for purchase from at least one of the following addresses: American Society for Testing and Materials (ASTM), 100 Barr Harbor Drive, Post Office Box C700, West Conshohocken, PA 19428-2959, Telephone (610) 832-9585, and are also available at the following Web site: <http://www.astm.org>; or ProQuest, 789 East Eisenhower Parkway, Ann Arbor, MI 48106-1346, Telephone (734) 761-4700, and are also available at the following Web site: <http://www.proquest.com>.

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- (1) ASTM A99-76, 82 (Reapproved 1987), Standard Specification for Ferromanganese, incorporation by reference (IBR) approved for §60.261.
- (2) ASTM A100-69, 74, 93, Standard Specification for Ferrosilicon, IBR approved for §60.261.
- (3) ASTM A101-73, 93, Standard Specification for Ferrochromium, IBR approved for §60.261.
- (4) ASTM A482-76, 93, Standard Specification for Ferrochromesilicon, IBR approved for §60.261.
- (5) ASTM A483-64, 74 (Reapproved 1988), Standard Specification for Silicomanganese, IBR approved for §60.261.
- (6) ASTM A495-76, 94, Standard Specification for Calcium-Silicon and Calcium Manganese-Silicon, IBR approved for §60.261.
- (7) ASTM D86-96, Standard Test Method for Distillation of Petroleum Products (Approved April 10, 1996), IBR approved for §§60.562-2(d), 60.593(d), 60.593a(d), 60.633(h) and 60.5401(f).
- (8) ASTM D129-64, 78, 95, 00, Standard Test Method for Sulfur in Petroleum Products (General Bomb Method), IBR approved for §§60.106(f)(2), 60.335(b)(10)(i), and appendix A: Method 19, 12.5.2.2.3.
- (9) ASTM D129-00 (Reapproved 2005), Standard Test Method for Sulfur in Petroleum Products (General Bomb Method), IBR approved for §60.4415(a)(1)(i).
- (10) ASTM D240-76, 92, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter, IBR approved for §§60.46(c), 60.296(b), and appendix A: Method 19, Section 12.5.2.2.3.
- (11) ASTM D270-65, 75, Standard Method of Sampling Petroleum and Petroleum Products, IBR approved for appendix A: Method 19, Section 12.5.2.2.1.
- (12) ASTM D323-82, 94, Test Method for Vapor Pressure of Petroleum Products (Reid Method), IBR approved for §§60.111(i), 60.111a(g), 60.111b(g), and 60.116b(f)(2)(ii).
- (13) ASTM D388-77, 90, 91, 95, 98a, 99 (Reapproved 2004)¹, Standard Specification for Classification of Coals by Rank, IBR approved for §§60.24(h)(8), 60.41 of subpart D of this part, 60.45(f)(4)(i), 60.45(f)(4)(ii), 60.45(f)(4)(vi), 60.41Da of subpart Da of this part, 60.41b of subpart Db of this part, 60.41c of subpart Dc of this part, 60.251 of subpart Y of this part, and 60.4102.
- (14) ASTM D396-78, 89, 90, 92, 96, 98, Standard Specification for Fuel Oils, IBR approved for §§60.41b of subpart Db of this part, 60.41c of subpart Dc of this part, 60.111(b) of subpart K of this part, and 60.111a(b) of subpart Ka of this part.
- (15) ASTM D975-78, 96, 98a, Standard Specification for Diesel Fuel Oils, IBR approved for §§60.111(b) of subpart K of this part and 60.111a(b) of subpart Ka of this part.
- (16) ASTM D975-08a, Standard Specification for Diesel Fuel Oils, IBR approved for §§60.41b of subpart Db of this part and 60.41c of subpart Dc of this part.
- (17) ASTM D1072-80, 90 (Reapproved 1994), Standard Test Method for Total Sulfur in Fuel Gases, IBR approved for §60.335(b)(10)(ii).
- (18) ASTM D1072-90 (Reapproved 1999), Standard Test Method for Total Sulfur in Fuel Gases, IBR approved for §60.4415(a)(1)(ii).
- (19) ASTM D1137-53, 75, Standard Method for Analysis of Natural Gases and Related Types of Gaseous Mixtures by the Mass Spectrometer, IBR approved for §60.45(f)(5)(i).
- (20) ASTM D1193-77, 91, Standard Specification for Reagent Water, IBR approved for appendix A: Method 5, Section 7.1.3; Method 5E, Section 7.2.1; Method 5F, Section 7.2.1; Method 6, Section 7.1.1; Method 7, Section 7.1.1; Method 7C, Section 7.1.1; Method 7D, Section 7.1.1; Method 10A, Section 7.1.1; Method 11, Section 7.1.3; Method 12, Section 7.1.3; Method 13A, Section 7.1.2; Method 26, Section 7.1.2; Method 26A, Section 7.1.2; and Method 29, Section 7.2.2.
- (21) ASTM D1266-87, 91, 98, Standard Test Method for Sulfur in Petroleum Products (Lamp Method), IBR approved for §§60.106(j)(2) and 60.335(b)(10)(i).

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(22) ASTM D1266-98 (Reapproved 2003)e1, Standard Test Method for Sulfur in Petroleum Products (Lamp Method), IBR approved for §60.4415(a)(1)(i).

(23) ASTM D1475-60 (Reapproved 1980), 90, Standard Test Method for Density of Paint, Varnish Lacquer, and Related Products, IBR approved for §60.435(d)(1), appendix A: Method 24, Section 6.1; and Method 24A, Sections 6.5 and 7.1.

(24) ASTM D1552-83, 95, 01, Standard Test Method for Sulfur in Petroleum Products (High-Temperature Method), IBR approved for §§60.106(j)(2), 60.335(b)(10)(i), and appendix A: Method 19, Section 12.5.2.2.3.

(25) ASTM D1552-03, Standard Test Method for Sulfur in Petroleum Products (High-Temperature Method), IBR approved for §60.4415(a)(1)(i).

(26) ASTM D1826-77, 94, Standard Test Method for Calorific Value of Gases in Natural Gas Range by Continuous Recording Calorimeter, IBR approved for §§60.45(f)(5)(ii), 60.46(c)(2), 60.296(b)(3), and appendix A: Method 19, Section 12.3.2.4.

(27) ASTM D1835-87, 91, 97, 03a, Standard Specification for Liquefied Petroleum (LP) Gases, IBR approved for §60.41 Da of subpart Da of this part, 60.41b of subpart Db of this part, and 60.41c of subpart Dc of this part.

(28) ASTM D1945-64, 76, 91, 96, Standard Method for Analysis of Natural Gas by Gas Chromatography, IBR approved for §60.45(f)(5)(i).

(29) ASTM D1946-77, 90 (Reapproved 1994), Standard Method for Analysis of Reformed Gas by Gas Chromatography, IBR approved for §§60.18(f)(3), 60.45(f)(5)(i), 60.564(f)(1), 60.614(e)(2)(ii), 60.614(e)(4), 60.664(c)(2)(ii), 60.664(c)(4), 60.704(d)(2)(ii), and 60.704(d)(4).

(30) ASTM D2013-72, 86, Standard Method of Preparing Coal Samples for Analysis, IBR approved for appendix A: Method 19, Section 12.5.2.1.3.

(31) ASTM D2015-77 (Reapproved 1978), 96, Standard Test Method for Gross Calorific Value of Solid Fuel by the Adiabatic Bomb Calorimeter, IBR approved for §60.45(f)(5)(ii), 60.46(c)(2), and appendix A: Method 19, Section 12.5.2.1.3.

(32) ASTM D2016-74, 83, Standard Test Methods for Moisture Content of Wood, IBR approved for appendix A: Method 28, Section 16.1.1.

(33) ASTM D2234-76, 96, 97b, 98, Standard Methods for Collection of a Gross Sample of Coal, IBR approved for appendix A: Method 19, Section 12.5.2.1.1.

(34) ASTM D2369-81, 87, 90, 92, 93, 95, Standard Test Method for Volatile Content of Coatings, IBR approved for appendix A: Method 24, Section 6.2.

(35) ASTM D2382-76, 88, Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High-Precision Method), IBR approved for §§60.18(f)(3), 60.485(g)(6), 60.485a(g)(6), 60.564(f)(3), 60.614(e)(4), 60.664(e)(4), and 60.704(d)(4).

(36) ASTM D2504-67, 77, 88 (Reapproved 1993), Noncondensable Gases in C3 and Lighter Hydrocarbon Products by Gas Chromatography, IBR approved for §§60.485(g)(5) and 60.485a(g)(5).

(37) ASTM D2584-68 (Reapproved 1985), 94, Standard Test Method for Ignition Loss of Cured Reinforced Resins, IBR approved for §60.685(c)(3)(i).

(38) ASTM D2597-94 (Reapproved 1999), Standard Test Method for Analysis of Demethanized Hydrocarbon Liquid Mixtures Containing Nitrogen and Carbon Dioxide by Gas Chromatography, IBR approved for §60.335(b)(9)(i).

(39) ASTM D2622-87, 94, 98, Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-Ray Fluorescence Spectrometry, IBR approved for §§60.106(j)(2) and 60.335(b)(10)(i).

(40) ASTM D2622-05, Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-Ray Fluorescence Spectrometry, IBR approved for §60.4415(a)(1)(i).

(41) ASTM D2879-83, 96, 97, Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, IBR approved for §§60.111b(f)(3), 60.116b(e)(3)(ii), 60.116b(f)(2)(i), 60.485(e)(1), and 60.485a(c)(1).

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(42) ASTM D2880-78, 96, Standard Specification for Gas Turbine Fuel Oils, IBR approved for §§60.111(b), 60.111a(b), and 60.335(d).

(43) ASTM D2908-74, 91, Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, IBR approved for §60.564(j).

(44) ASTM D2986-71, 78, 95a, Standard Method for Evaluation of Air, Assay Media by the Monodisperse DOP (Diocetyl Phthalate) Smoke Test, IBR approved for appendix A: Method 5, Section 7.1.1; Method 12, Section 7.1.1; and Method 13A, Section 7.1.1.2.

(45) ASTM D3173-73, 87, Standard Test Method for Moisture in the Analysis Sample of Coal and Coke, IBR approved for appendix A: Method 19, Section 12.5.2.1.3.

(46) ASTM D3176-74, 89, Standard Method for Ultimate Analysis of Coal and Coke, IBR approved for §60.45(f)(5)(i) and appendix A: Method 19, Section 12.3.2.3.

(47) ASTM D3177-75, 89, Standard Test Method for Total Sulfur in the Analysis Sample of Coal and Coke, IBR approved for appendix A: Method 19, Section 12.5.2.1.3.

(48) ASTM D3178-73 (Reapproved 1979), 89, Standard Test Methods for Carbon and Hydrogen in the Analysis Sample of Coal and Coke, IBR approved for §60.45(f)(5)(i).

(49) ASTM D3246-81, 92, 96, Standard Test Method for Sulfur in Petroleum Gas by Oxidative Microcoulometry, IBR approved for §60.335(b)(10)(ii).

(50) ASTM D3246-05, Standard Test Method for Sulfur in Petroleum Gas by Oxidative Microcoulometry, IBR approved for §60.4415(a)(1)(ii).

(51) ASTM D3270-73T, 80, 91, 95, Standard Test Methods for Analysis for Fluoride Content of the Atmosphere and Plant Tissues (Semiautomated Method), IBR approved for appendix A: Method 13A, Section 16.1.

(52) ASTM D3286-85, 96, Standard Test Method for Gross Calorific Value of Coal and Coke by the Isoperibol Bomb Calorimeter, IBR approved for appendix A: Method 19, Section 12.5.2.1.3.

(53) ASTM D3370-76, 95a, Standard Practices for Sampling Water, IBR approved for §60.564(j).

(54) ASTM D3792-79, 91, Standard Test Method for Water Content of Water-Reducible Paints by Direct Injection into a Gas Chromatograph, IBR approved for appendix A: Method 24, Section 6.3.

(55) ASTM D4017-81, 90, 96a, Standard Test Method for Water in Paints and Paint Materials by the Karl Fischer Titration Method, IBR approved for appendix A: Method 24, Section 6.4.

(56) ASTM D4057-81, 95, Standard Practice for Manual Sampling of Petroleum and Petroleum Products, IBR approved for appendix A: Method 19, Section 12.5.2.2.3.

(57) ASTM D4057-95 (Reapproved 2000), Standard Practice for Manual Sampling of Petroleum and Petroleum Products, IBR approved for §60.4415(a)(1).

(58) ASTM D4084-82, 94, Standard Test Method for Analysis of Hydrogen Sulfide in Gaseous Fuels (Lead Acetate Reaction Rate Method), IBR approved for §60.334(h)(1).

(59) ASTM D4084-05, Standard Test Method for Analysis of Hydrogen Sulfide in Gaseous Fuels (Lead Acetate Reaction Rate Method), IBR approved for §§60.4360 and 60.4415(a)(1)(ii).

(60) ASTM D4177-95, Standard Practice for Automatic Sampling of Petroleum and Petroleum Products, IBR approved for appendix A: Method 19, Section 12.5.2.2.1.

(61) ASTM D4177-95 (Reapproved 2000), Standard Practice for Automatic Sampling of Petroleum and Petroleum Products, IBR approved for §60.4415(a)(1).

(62) ASTM D4239-85, 94, 97, Standard Test Methods for Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods, IBR approved for appendix A: Method 19, Section 12.5.2.1.3.

(63) ASTM D4294-02, Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, IBR approved for §60.335(b)(10)(i).

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- (64) ASTM D4294-03, Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, IBR approved for §60.4415(a)(1)(i).
- (65) ASTM D4442-84, 92, Standard Test Methods for Direct Moisture Content Measurement in Wood and Wood-base Materials, IBR approved for appendix A: Method 28, Section 16.1.1.
- (66) ASTM D4444-92, Standard Test Methods for Use and Calibration of Hand-Held Moisture Meters, IBR approved for appendix A: Method 28, Section 16.1.1.
- (67) ASTM D4457-85 (Reapproved 1991), Test Method for Determination of Dichloromethane and 1, 1, 1-Trichloroethane in Paints and Coatings by Direct Injection into a Gas Chromatograph, IBR approved for appendix A: Method 24, Section 6.5.
- (68) ASTM D4468-85 (Reapproved 2000), Standard Test Method for Total Sulfur in Gaseous Fuels by Hydrogenolysis and Rateometric Colorimetry, IBR approved for §§60.335(b)(10)(ii) and 60.4415(a)(1)(ii).
- (69) ASTM D4629-02, Standard Test Method for Trace Nitrogen in Liquid Petroleum Hydrocarbons by Syringe/Inlet Oxidative Combustion and Chemiluminescence Detection, IBR approved for §§60.49b(e) and 60.335(b)(9)(i).
- (70) ASTM D4809-95, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter (Precision Method), IBR approved for §§60.18(f)(3), 60.485(g)(6), 60.485a(g)(6), 60.564(f)(3), 60.614(d)(4), 60.664(e)(4), and 60.704(d)(4).
- (71) ASTM D4810-88 (Reapproved 1999), Standard Test Method for Hydrogen Sulfide in Natural Gas Using Length of Stain Detector Tubes, IBR approved for §§60.4360 and 60.4415(a)(1)(ii).
- (72) ASTM D5287-97 (Reapproved 2002), Standard Practice for Automatic Sampling of Gaseous Fuels, IBR approved for §60.4415(a)(1).
- (73) ASTM D5403-93, Standard Test Methods for Volatile Content of Radiation Curable Materials, IBR approved for appendix A: Method 24, Section 6.6.
- (74) ASTM D5453-00, Standard Test Method for Determination of Total Sulfur in Light Hydrocarbons, Motor Fuels and Oils by Ultraviolet Fluorescence, IBR approved for §60.335(b)(10)(i).
- (75) ASTM D5453-05, Standard Test Method for Determination of Total Sulfur in Light Hydrocarbons, Motor Fuels and Oils by Ultraviolet Fluorescence, IBR approved for §60.4415(a)(1)(i).
- (76) ASTM D5504-01, Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Chemiluminescence, IBR approved for §§60.334(h)(1) and 60.4360.
- (77) ASTM D5762-02, Standard Test Method for Nitrogen in Petroleum and Petroleum Products by Boat-Inlet Chemiluminescence, IBR approved for §60.335(b)(9)(i).
- (78) ASTM D5865-98, Standard Test Method for Gross Calorific Value of Coal and Coke, IBR approved for §60.45(f)(5)(ii), 60.46(c)(2), and appendix A: Method 19, Section 12.5.2.1.3.
- (79) ASTM D6216-98, Standard Practice for Opacity Monitor Manufacturers to Certify Conformance with Design and Performance Specifications, IBR approved for appendix B, Performance Specification 1.
- (80) ASTM D6228-98, Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Flame Photometric Detection, IBR approved for §60.334(h)(1).
- (81) ASTM D6228-98 (Reapproved 2003), Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Flame Photometric Detection, IBR approved for §§60.4360 and 60.4415.
- (82) ASTM D6348-03, Standard Test Method for Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform Infrared (FTIR) Spectroscopy, approved October 1, 2003, IBR approved for §60.73a(b) of subpart Ga of this part, table 7 of subpart III of this part, and table 2 of subpart JJJJ of this part.
- (83) ASTM D6366-99, Standard Test Method for Total Trace Nitrogen and Its Derivatives in Liquid Aromatic Hydrocarbons by Oxidative Combustion and Electrochemical Detection, IBR approved for §60.335(b)(9)(i).

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- (84) ASTM D6420-99 (Reapproved 2004), Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry, (Approved October 1, 2004), IBR approved for §60.107a(d) of subpart Ja and table 2 of subpart JJJJ of this part.
- (85) ASTM D6522-00, Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers, IBR approved for §60.335(a).
- (86) ASTM D6522-00 (Reapproved 2005), Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers (Approved October 1, 2005), IBR approved for table 2 of subpart JJJJ of this part, and §§60.5413(b) and (d).
- (87) ASTM D6667-01, Standard Test Method for Determination of Total Volatile Sulfur in Gaseous Hydrocarbons and Liquefied Petroleum Gases by Ultraviolet Fluorescence, IBR approved for §60.335(b)(10)(ii).
- (88) ASTM D6667-04, Standard Test Method for Determination of Total Volatile Sulfur in Gaseous Hydrocarbons and Liquefied Petroleum Gases by Ultraviolet Fluorescence, IBR approved for §60.4415(a)(1)(ii).
- (89) ASTM D6784-02, Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method), IBR approved for appendix B to part 60, Performance Specification 12A, Section 8.6.2.
- (90) ASTM D6784-02, Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method), IBR approved for Appendix B to part 60, Performance Specification 12A, Section 8.6.2 and §60.56c(b)(13) of subpart Ec of this part.
- (91) ASTM E169-93, Standard Practices for General Techniques of Ultraviolet-Visible Quantitative Analysis (Approved May 15, 1993), IBR approved for §§60.485a(d), 60.593(b), 60.593a(b), 60.632(f) and 60.5400(f).
- (92) ASTM E260-96, Standard Practice for Packed Column Gas Chromatography (Approved April 10, 1996), IBR approved for §§60.485a(d), 60.593(b), 60.593a(b), 60.632(f), 60.5400(f) and 60.5406(b).
- (93) ASTM D6784-02 (Reapproved 2008) Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method), approved April 1, 2008, IBR approved for §§60.2165(j), 60.2730(j), tables 1, 5, 6 and 8 to subpart CCCC, and tables 2, 6, 7, and 9 to subpart DDDD, §§60.4900(b)(4)(v), 60.5220(b)(4)(v), tables 1 and 2 to subpart LLLL, and tables 2 and 3 to subpart MMMM.
- (94) ASTM D5865-10 (Approved January 1, 2010), Standard Test Method for Gross Calorific Value of Coal and Coke, IBR approved for §60.45(f)(5)(ii), §60.46(c)(2), and appendix A-7 to part 60, Method 19, section 12.5.2.1.3.
- (95) ASTM D3588-98 (Reapproved 2003), Standard Practice for Calculating Heat Value, Compressibility Factor, and Relative Density of Gaseous Fuels, (Approved May 10, 2003), IBR approved for §§60.107a(d) and 60.5413(d).
- (96) ASTM D4891-89 (Reapproved 2006), Standard Test Method for Heating Value of Gases in Natural Gas Range by Stoichiometric Combustion, (Approved June 1, 2006), IBR approved for §§60.107a(d) and 60.5413(d).
- (97) ASTM D1945-03 (Reapproved 2010), Standard Method for Analysis of Natural Gas by Gas Chromatography, (Approved January 1, 2010), IBR approved for §§60.107a(d) and 60.5413(d).
- (98) ASTM D5504-08, Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Chemiluminescence, (Approved June 15, 2008), IBR approved for §§60.107a(e) and 60.5413(d).
- (99) ASTM E1584-11, Standard Test Method for Assay of Nitric Acid, approved August 1, 2011, IBR approved for §60.73a(c) of subpart Ga of this part.
- (100) ASTM D4468-85 (Reapproved 2006), Standard Test Method for Total Sulfur in Gaseous Fuels by Hydrogenolysis and Rateometric Colorimetry (Approved June 1, 2006), IBR approved for §60.107a(e).
- (101) ASTM D240-02 (Reapproved 2007), Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter, (Approved May 1, 2007), IBR approved for §60.107a(d).

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- (102) ASTM D 1826-94 (Reapproved 2003), Standard Test Method for Calorific (Heating) Value of Gases in Natural Gas Range by Continuous Recording Calorimeter, (Approved May 10, 2003), IBR approved for §60.107a(d).
- (103) ASTM D 1946-90 (Reapproved 2006), Standard Method for Analysis of Reformed Gas by Gas Chromatography, (Approved June 1, 2006), IBR approved for §60.107a(d).
- (104) ASTM D4809-06, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter (Precision Method), (Approved December 1, 2006), IBR approved for §60.107a(d).
- (105) ASTM UOP539-97, Refinery Gas Analysis by Gas Chromatography, (Copyright 1997), IBR approved for §60.107a(d).
- (106) ASTM D3699-08, Standard Specification for Kerosine, including Appendix X1, (Approved September 1, 2008), IBR approved for §§60.41b of subpart Db and 60.41c of subpart Dc of this part.
- (107) ASTM D6751-11b, Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels, including Appendices X1 through X3, (Approved July 15, 2011), IBR approved for §§60.41b of subpart Db and 60.41c of subpart Dc of this part.
- (108) ASTM D7467-10, Standard Specification for Diesel Fuel Oil, Biodiesel Blend (B6 to B20), including Appendices X1 through X3, (Approved August 1, 2010), IBR approved for §§60.41b of subpart Db and 60.41c of subpart Dc of this part.
- (b) The following material is available for purchase from the Association of Official Analytical Chemists, 1111 North 19th Street, Suite 210, Arlington, VA 22209.
- (1) AOAC Method 9, Official Methods of Analysis of the Association of Official Analytical Chemists, 11th edition, 1970, pp. 11-12, IBR approved January 27, 1983 for §§60.204(b)(3), 60.214(b)(3), 60.224(b)(3), 60.234(h)(3).
- (c) The following material is available for purchase from the American Petroleum Institute, 1220 L Street NW., Washington, DC 20005.
- (1) API Publication 2517, Evaporation Loss from External Floating Roof Tanks, Second Edition, February 1980, IBR approved January 27, 1983, for §§60.111(i), 60.111a(f), 60.111a(f)(1) and 60.116b(e)(2)(i).
- (2) American Petroleum Institute (API) Manual of Petroleum Measurement Standards, Chapter 22-Testing Protocol, Section 2-Differential Pressure Flow Measurement Devices, First Edition, August 2005, IBR approved for §60.107a(d) of subpart Ja of this part.
- (d) The following material is available for purchase from the Technical Association of the Pulp and Paper Industry (TAPPI), Dunwoody Park, Atlanta, GA 30341.
- (1) TAPPI Method T624 os-68, IBR approved January 27, 1983 for §60.285(d)(3).
- (e) The following material is available for purchase from the Water Pollution Control Federation (WPCF), 2626 Pennsylvania Avenue NW., Washington, DC 20037.
- (1) Method 209A, Total Residue Dried at 103-105 °C, in Standard Methods for the Examination of Water and Wastewater, 15th Edition, 1980, IBR approved February 25, 1985 for §60.683(b).
- (f) The following material is available for purchase from the following address: Underwriter's Laboratories, Inc. (UL), 333 Pfingsten Road, Northbrook, IL 60062.
- (1) UL 103, Sixth Edition revised as of September 3, 1986, Standard for Chimneys, Factory-built, Residential Type and Building Heating Appliance.
- (g) The following material is available for purchase from the following address: West Coast Lumber Inspection Bureau, 6980 SW. Barnes Road, Portland, OR 97223.
- (1) West Coast Lumber Standard Grading Rules No. 16, pages 5-21 and 90 and 91, September 3, 1970, revised 1984.
- (h) The following material is available for purchase from the American Society of Mechanical Engineers (ASME), Three Park Avenue, New York, NY 10016-5900, Telephone (800) 843-2763, and are also available at the following Web site: <http://www.asme.org>.

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- (1) ASME QRO-1-1994, Standard for the Qualification and Certification of Resource Recovery Facility Operators, IBR approved for §§60.56a, 60.54b(a), 60.54b(b), 60.1185(a), 60.1185(c)(2), 60.1675(a), and 60.1675(e)(2).
- (2) ASME PTC 4.1-1964 (Reaffirmed 1991), Power Test Codes: Test Code for Steam Generating Units (with 1968 and 1969 Addenda), IBR approved for §§60.46b of subpart Db of this part, 60.58a(h)(6)(ii), 60.58b(i)(6)(ii), 60.1320(a)(3) and 60.1810(a)(3).
- (3) ASME Interim Supplement 19.5 on Instruments and Apparatus: Application, Part II of Fluid Meters, 6th Edition (1971), IBR approved for §§60.58a(h)(6)(ii), 60.58b(i)(6)(ii), 60.1320(a)(4), and 60.1810(a)(4).
- (4) ANSI/ASME PTC 19.10-1981, Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus], IBR approved for §60.56c(b)(4), §60.63(f)(2) and (f)(4), §60.106(e)(2), §§60.104a(d)(3), (d)(5), (d)(6), (h)(3), (h)(4), (h)(5), (i)(3), (i)(4), (i)(5), (j)(3), and (j)(4), §60.105a(d)(4), (f)(2), (f)(4), (g)(2), and (g)(4), §60.106a(a)(1)(iii), (a)(2)(iii), (a)(2)(v), (a)(2)(viii), (a)(3)(ii), and (a)(3)(v), and §60.107a(a)(1)(ii), (a)(1)(iv), (a)(2)(ii), (c)(2), (c)(4), and (d)(2), tables 1 and 3 of subpart EEEE, tables 2 and 4 of subpart FFFF, table 2 of subpart JJJJ, §§60.4415(a)(2) and (a)(3), 60.2145(s)(1)(i) and (ii), 60.2145(t)(1)(ii), 60.2145(t)(5)(i), 60.2710(s)(1)(i) and (ii), 60.2710(t)(1)(ii), 60.2710(t)(5)(i), 60.2710(w)(3), 60.2730(q)(3), 60.4900(b)(4)(vii) and (viii), 60.4900(b)(5)(i), 60.5220(b)(4)(vii) and (viii), 60.5220(b)(5)(i), tables 1 and 2 to subpart LLLL, and tables 2 and 3 to subpart MMMM.
- (5) ASME MFC-3M-2004, Measurement of Fluid Flow in Pipes Using Orifice, Nozzle, and Venturi, IBR approved for §60.107a(d) of subpart Ja of this part.
- (6) ANSI/ASME MFC-4M-1986 (Reaffirmed 2008), Measurement of Gas Flow by Turbine Meters, IBR approved for §60.107a(d) of subpart Ja of this part.
- (7) ANSI/ASME-MFC-5M-1985 (Reaffirmed 2006), Measurement of Liquid Flow in Closed Conduits Using Transit-Time Ultrasonic Flowmeters, IBR approved for §60.107a(d) of subpart Ja of this part.
- (8) ASME MFC-6M-1998 (Reaffirmed 2005), Measurement of Fluid Flow in Pipes Using Vortex Flowmeters, IBR approved for §60.107a(d) of subpart Ja of this part.
- (9) ASME/ANSI MFC-7M-1987 (Reaffirmed 2006), Measurement of Gas Flow by Means of Critical Flow Venturi Nozzles, IBR approved for §60.107a(d) of subpart Ja of this part.
- (10) ASME/ANSI MFC-9M-1988 (Reaffirmed 2006), Measurement of Liquid Flow in Closed Conduits by Weighing Method, IBR approved for §60.107a(d) of subpart Ja of this part.
- (11) ASME MFC-11M-2006, Measurement of Fluid Flow by Means of Coriolis Mass Flowmeters, IBR approved for §60.107a(d) of subpart Ja of this part.
- (12) ASME MFC-14M-2003, Measurement of Fluid Flow Using Small Bore Precision Orifice Meters, IBR approved for §60.107a(d) of subpart Ja of this part.
- (13) ASME MFC-16-2007, Measurement of Liquid Flow in Closed Conduits with Electromagnetic Flowmeters, IBR approved for §60.107a(d) of subpart Ja of this part.
- (14) ASME MFC-18M-2001, Measurement of Fluid Flow Using Variable Area Meters, IBR approved for §60.107a(d) of subpart Ja of this part.
- (15) ASME MFC-22-2007, Measurement of Liquid by Turbine Flowmeters, IBR approved for §60.107a(d) of subpart Ja of this part.
- (j) "Standard Methods for the Examination of Water and Wastewater," 16th edition, 1985. Method 303F: "Determination of Mercury by the Cold Vapor Technique." This document may be obtained from the American Public Health Association, 1015 18th Street, NW., Washington, DC 20036, and is incorporated by reference for appendix A to part 60, Method 29, Sections 9.2.3; 10.3; and 11.1.3.
- (k) This material is available for purchase from the American Hospital Association (AHA) Service, Inc., Post Office Box 92683, Chicago, Illinois 60675-2683. You may inspect a copy at EPA's Air and Radiation Docket and Information Center (Docket A-91-61, Item IV-J-124), Room M-1500, 1200 Pennsylvania Ave., NW., Washington, DC.

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(1) An Ounce of Prevention: Waste Reduction Strategies for Health Care Facilities. American Society for Health Care Environmental Services of the American Hospital Association. Chicago, Illinois. 1993. AHA Catalog No. 057007. ISBN 0-87258-673-5. TBR approved for §60.35e and §60.55c.

(l) This material is available for purchase from the National Technical Information Services, 5285 Port Royal Road, Springfield, Virginia 22161. You may inspect a copy at EPA's Air and Radiation Docket and Information Center (Docket A-91-61, Item IV-J-125), Room M-1500, 1200 Pennsylvania Ave., NW., Washington, DC.

(1) OMB Bulletin No. 93-17: Revised Statistical Definitions for Metropolitan Areas. Office of Management and Budget, June 30, 1993. NTIS No. PB 93-192-664. TBR approved for §60.31e.

(2) [Reserved]

(m) This material is available for purchase from at least one of the following addresses: The Gas Processors Association, 6526 East 60th Street, Tulsa, OK, 74145; or Information Handling Services, 15 Inverness Way East, PO Box 1154, Englewood, CO 80150-1154. You may inspect a copy at EPA's Air and Radiation Docket and Information Center, Room B108, 1301 Constitution Ave., NW., Washington, DC 20460. You may inspect a copy at EPA's Air and Radiation Docket and Information Center, Room 3334, 1301 Constitution Ave., NW., Washington, DC 20460.

(1) Gas Processors Association Standard 2377-86, Test for Hydrogen Sulfide and Carbon Dioxide in Natural Gas Using Length of Stain Tubes, 1986 Revision, TBR approved for §§60.105(b)(1)(iv), 60.107a(b)(1)(iv), 60.334(h)(1), 60.4360, and 60.4415(a)(1)(ii).

(2) Gas Processors Association Standard 2172-09, Calculation of Gross Heating Value, Relative Density, Compressibility and Theoretical Hydrocarbon Liquid Content for Natural Gas Mixtures for Custody Transfer (2009), TBR approved for §60.107a(d) of subpart Ja of this part.

(3) Gas Processors Association Standard 2261-00, Analysis for Natural Gas and Similar Gaseous Mixtures by Gas Chromatography (2000), TBR approved for §60.107a(d) of subpart Ja of this part.

(n) This material is available for purchase from IHS Inc., 15 Inverness Way East, Englewood, CO 80112.

(1) International Organization for Standards 8178-4: 1996(E), Reciprocating Internal Combustion Engines—Exhaust Emission Measurement—part 4: Test Cycles for Different Engine Applications, TBR approved for §60.4241(b).

(2) [Reserved]

(o) The following material is available from the U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW., Washington, DC 20460, (202) 272-0167, <http://www.epa.gov>.

(1) Office of Air Quality Planning and Standards (OAQPS) Fabric Filter Bag Leak Detection Guidance, EPA-454/R-98-015, September 1997, TBR approved for §§60.2145(r)(2), 60.2710(r)(2), 60.4905(b)(3)(i)(B), and 60.5225(b)(3)(i)(B).

(2) [Reserved]

(p) The following American Gas Association material is available for purchase from the following address: ILI Infodisk, 610 Winters Avenue, Paramus, New Jersey 07652:

(1) American Gas Association Report No. 3: Orifice Metering for Natural Gas and Other Related Hydrocarbon Fluids, Part 1: General Equations and Uncertainty Guidelines (1990), TBR approved for §60.107a(d) of subpart Ja of this part.

(2) American Gas Association Report No. 3: Orifice Metering for Natural Gas and Other Related Hydrocarbon Fluids, Part 2: Specification and Installation Requirements (2000), TBR approved for §60.107a(d) of subpart Ja of this part.

(3) American Gas Association Report No. 11: Measurement of Natural Gas by Coriolis Meter (2003), TBR approved for §60.107a(d) of subpart Ja of this part.

(4) American Gas Association Transmission Measurement Committee Report No. 7: Measurement of Gas by Turbine Meters (Revised February 2006), TBR approved for §60.107a(d) of subpart Ja of this part.

(q) The following material is available for purchase from the International Standards Organization (ISO), 1, ch. de la Voie-Creuse, Case postale 56, CH-1211 Geneva 20, Switzerland, +41 22 749 01 11, <http://www.iso.org/iso/home.htm>.

(1) ISO 8316: Measurement of Liquid Flow in Closed Conduits—Method by Collection of the Liquid in a Volumetric Tank (1987-10-01)—First Edition, TBR approved for §60.107a(d) of subpart Ja of this part.

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(2) [Reserved]

(r) The following material is available from the North American Electric Reliability Corporation, 3353 Peachtree Road NE., Suite 600, North Tower, Atlanta, GA 30326, <http://www.nerc.com>, and is available at the following Web site: http://www.nerc.com/files/EOP-002-3_1.pdf.

(1) North American Electric Reliability Corporation, Reliability Standards for the Bulk of Electric Systems of North America, Reliability Standard EOP-002-3, Capacity and Energy Emergencies, updated November 19, 2012, TBR approved for §§60.4211(f) and 60.4243(d).

(2) [Reserved]

[48 FR 3735, Jan. 27, 1983]

EDITORIAL NOTES: 1. For FEDERAL REGISTER citations affecting §60.17, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at www.fdsys.gov.

2. At 77 FR 9446, Feb. 16, 2012, §60.17 was amended; however, the amendment could not be incorporated because paragraph (a)(94) already existed.

§60.18 General control device and work practice requirements.

(a) *Introduction.* (1) This section contains requirements for control devices used to comply with applicable subparts of 40 CFR parts 60 and 61. The requirements are placed here for administrative convenience and apply only to facilities covered by subparts referring to this section.

(2) This section also contains requirements for an alternative work practice used to identify leaking equipment. This alternative work practice is placed here for administrative convenience and is available to all subparts in 40 CFR parts 60, 61, 63, and 65 that require monitoring of equipment with a 40 CFR part 60, Appendix A-7, Method 21 monitor.

(b) *Flares.* Paragraphs (c) through (f) apply to flares.

(c)(1) Flares shall be designed for and operated with no visible emissions as determined by the methods specified in paragraph (f), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

(2) Flares shall be operated with a flame present at all times, as determined by the methods specified in paragraph (f).

(3) An owner/operator has the choice of adhering to either the heat content specifications in paragraph (c)(3)(ii) of this section and the maximum tip velocity specifications in paragraph (c)(4) of this section, or adhering to the requirements in paragraph (c)(3)(i) of this section.

(i)(A) Flares shall be used that have a diameter of 3 inches or greater, are nonassisted, have a hydrogen content of 8.0 percent (by volume), or greater, and are designed for and operated with an exit velocity less than 37.2 m/sec (122 ft/sec) and less than the velocity, V_{max} , as determined by the following equation:

$$V_{max} = (X_{H_2} - K_1) * K_2$$

Where:

V_{max} = Maximum permitted velocity, m/sec.

K_1 = Constant, 6.0 volume-percent hydrogen.

K_2 = Constant, 3.9(m/sec)/volume-percent hydrogen.

X_{H_2} = The volume-percent of hydrogen, on a wet basis, as calculated by using the American Society for Testing and Materials (ASTM) Method D1946-77. (Incorporated by reference as specified in §60.17).

(B) The actual exit velocity of a flare shall be determined by the method specified in paragraph (f)(4) of this section.

(ii) Flares shall be used only with the net heating value of the gas being combusted being 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted being 7.45 MJ/scm (200 Btu/scf) or greater if the flare is nonassisted. The net heating value of the gas being combusted shall be determined by the methods specified in paragraph (f)(3) of this section.

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(4)(i) Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4) of this section, less than 18.3 m/sec (60 ft/sec), except as provided in paragraphs (c)(4)(ii) and (iii) of this section.

(ii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4), equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec) are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).

(iii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4), less than the velocity, V_{max} , as determined by the method specified in paragraph (f)(5), and less than 122 m/sec (400 ft/sec) are allowed.

(5) Air-assisted flares shall be designed and operated with an exit velocity less than the velocity, V_{max} , as determined by the method specified in paragraph (f)(6).

(6) Flares used to comply with this section shall be steam-assisted, air-assisted, or nonassisted.

(d) Owners or operators of flares used to comply with the provisions of this subpart shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. Applicable subparts will provide provisions stating how owners or operators of flares shall monitor these control devices.

(e) Flares used to comply with provisions of this subpart shall be operated at all times when emissions may be vented to them.

(f)(1) Method 22 of appendix A to this part shall be used to determine the compliance of flares with the visible emission provisions of this subpart. The observation period is 2 hours and shall be used according to Method 22.

(2) The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.

(3) The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

$$H_T = K \sum_{i=1}^n C_i H_i$$

where:

H_T = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25 °C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 °C;

$$K = \text{Constant} \cdot 1.740 \times 10^{-7} \left(\frac{1}{\text{ppm}} \right) \left(\frac{\text{g mole}}{\text{scm}} \right) \left(\frac{\text{MJ}}{\text{kcal}} \right)$$

where the standard temperature for $\left(\frac{\text{g mole}}{\text{scm}} \right)$ is 20°C;

C_i = Concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 and measured for hydrogen and carbon monoxide by ASTM D1946-77 or 90 (Reapproved 1994) (incorporated by reference as specified in §60.17); and

H_i = Net heat of combustion of sample component i, kcal/g mole at 25 °C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382-76 or 88 or D4809-95 (incorporated by reference as specified in §60.17) if published values are not available or cannot be calculated.

(4) The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip.

(5) The maximum permitted velocity, V_{max} , for flares complying with paragraph (c)(4)(iii) shall be determined by the following equation.

$$\text{Log}_{10}(V_{max}) = (H_T + 28.8) / 31.7$$

V_{max} = Maximum permitted velocity, M/sec
28.8=Constant
31.7=Constant

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H_T = The net heating value as determined in paragraph (f)(3).

(6) The maximum permitted velocity, V_{max} , for air-assisted flares shall be determined by the following equation.

$$V_{max} = 8.706 + 0.7084 (H_T)$$

V_{max} = Maximum permitted velocity, m/sec

8.706=Constant

0.7084=Constant

H_T = The net heating value as determined in paragraph (f)(3).

(g) *Alternative work practice for monitoring equipment for leaks.* Paragraphs (g), (h), and (i) of this section apply to all equipment for which the applicable subpart requires monitoring with a 40 CFR part 60, Appendix A-7, Method 21 monitor, except for closed vent systems, equipment designated as leakless, and equipment identified in the applicable subpart as having no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background. An owner or operator may use an optical gas imaging instrument instead of a 40 CFR part 60, Appendix A-7, Method 21 monitor. Requirements in the existing subparts that are specific to the Method 21 instrument do not apply under this section. All other requirements in the applicable subpart that are not addressed in paragraphs (g), (h), and (i) of this section apply to this standard. For example, equipment specification requirements, and non-Method 21 instrument recordkeeping and reporting requirements in the applicable subpart continue to apply. The terms defined in paragraphs (g)(1) through (5) of this section have meanings that are specific to the alternative work practice standard in paragraphs (g), (h), and (i) of this section.

(1) *Applicable subpart* means the subpart in 40 CFR parts 60, 61, 63, or 65 that requires monitoring of equipment with a 40 CFR part 60, Appendix A-7, Method 21 monitor.

(2) *Equipment* means pumps, valves, pressure relief valves, compressors, open-ended lines, flanges, connectors, and other equipment covered by the applicable subpart that require monitoring with a 40 CFR part 60, Appendix A-7, Method 21 monitor.

(3) *Imaging* means making visible emissions that may otherwise be invisible to the naked eye.

(4) *Optical gas imaging instrument* means an instrument that makes visible emissions that may otherwise be invisible to the naked eye.

(5) *Repair* means that equipment is adjusted, or otherwise altered, in order to eliminate a leak.

(6) *Leak* means:

(i) Any emissions imaged by the optical gas instrument;

(ii) Indications of liquids dripping;

(iii) Indications by a sensor that a seal or barrier fluid system has failed; or

(iv) Screening results using a 40 CFR part 60, Appendix A-7, Method 21 monitor that exceed the leak definition in the applicable subpart to which the equipment is subject.

(h) The alternative work practice standard for monitoring equipment for leaks is available to all subparts in 40 CFR parts 60, 61, 63, and 65 that require monitoring of equipment with a 40 CFR part 60, Appendix A-7, Method 21 monitor.

(1) An owner or operator of an affected source subject to CFR parts 60, 61, 63, or 65 can choose to comply with the alternative work practice requirements in paragraph (i) of this section instead of using the 40 CFR part 60, Appendix A-7, Method 21 monitor to identify leaking equipment. The owner or operator must document the equipment, process units, and facilities for which the alternative work practice will be used to identify leaks.

(2) Any leak detected when following the leak survey procedure in paragraph (i)(3) of this section must be identified for repair as required in the applicable subpart.

(3) If the alternative work practice is used to identify leaks, re-screening after an attempted repair of leaking equipment must be conducted using either the alternative work practice or the 40 CFR part 60, Appendix A-7, Method 21 monitor at the leak definition required in the applicable subpart to which the equipment is subject.

(4) The schedule for repair is as required in the applicable subpart.

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(5) When this alternative work practice is used for detecting leaking equipment, choose one of the monitoring frequencies listed in Table 1 to subpart A of this part in lieu of the monitoring frequency specified for regulated equipment in the applicable subpart. Reduced monitoring frequencies for good performance are not applicable when using the alternative work practice.

(6) When this alternative work practice is used for detecting leaking equipment the following are not applicable for the equipment being monitored:

- (i) Skip period leak detection and repair;
- (ii) Quality improvement plans; or
- (iii) Complying with standards for allowable percentage of valves and pumps to leak.

(7) When the alternative work practice is used to detect leaking equipment, the regulated equipment in paragraph (h)(1)(i) of this section must also be monitored annually using a 40 CFR part 60, Appendix A-7, Method 21 monitor at the leak definition required in the applicable subpart. The owner or operator may choose the specific monitoring period (for example, first quarter) to conduct the annual monitoring. Subsequent monitoring must be conducted every 12 months from the initial period. Owners or operators must keep records of the annual Method 21 screening results, as specified in paragraph (i)(4)(vii) of this section.

(i) An owner or operator of an affected source who chooses to use the alternative work practice must comply with the requirements of paragraphs (i)(1) through (i)(5) of this section.

(1) Instrument Specifications. The optical gas imaging instrument must comply with the requirements in (i)(1)(i) and (i)(1)(ii) of this section.

(i) Provide the operator with an image of the potential leak points for each piece of equipment at both the detection sensitivity level and within the distance used in the daily instrument check described in paragraph (i)(2) of this section. The detection sensitivity level depends upon the frequency at which leak monitoring is to be performed.

(ii) Provide a date and time stamp for video records of every monitoring event.

(2) Daily Instrument Check. On a daily basis, and prior to beginning any leak monitoring work, test the optical gas imaging instrument at the mass flow rate determined in paragraph (i)(2)(i) of this section in accordance with the procedure specified in paragraphs (i)(2)(ii) through (i)(2)(iv) of this section for each camera configuration used during monitoring (for example, different lenses used), unless an alternative method to demonstrate daily instrument checks has been approved in accordance with paragraph (i)(2)(v) of this section.

(i) Calculate the mass flow rate to be used in the daily instrument check by following the procedures in paragraphs (i)(2)(i)(A) and (i)(2)(i)(B) of this section.

(A) For a specified population of equipment to be imaged by the instrument, determine the piece of equipment in contact with the lowest mass fraction of chemicals that are detectable, within the distance to be used in paragraph (i)(2)(iv)(B) of this section, at or below the standard detection sensitivity level.

(B) Multiply the standard detection sensitivity level, corresponding to the selected monitoring frequency in Table 1 of subpart A of this part, by the mass fraction of detectable chemicals from the stream identified in paragraph (i)(2)(i)(A) of this section to determine the mass flow rate to be used in the daily instrument check, using the following equation.

$$E_{dic} = (E_{std}) \sum_{i=1}^n x_i$$

Where:

E_{dic} = Mass flow rate for the daily instrument check, grams per hour

x_i = Mass fraction of detectable chemical(s) i seen by the optical gas imaging instrument, within the distance to be used in paragraph (i)(2)(iv)(B) of this section, at or below the standard detection sensitivity level, E_{std} .

E_{std} = Standard detection sensitivity level from Table 1 to subpart A, grams per hour

k = Total number of detectable chemicals emitted from the leaking equipment and seen by the optical gas imaging instrument.

(ii) Start the optical gas imaging instrument according to the manufacturer's instructions, ensuring that all appropriate settings conform to the manufacturer's instructions.

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(iii) Use any gas chosen by the user that can be viewed by the optical gas imaging instrument and that has a purity of no less than 98 percent.

(iv) Establish a mass flow rate by using the following procedures:

(A) Provide a source of gas where it will be in the field of view of the optical gas imaging instrument.

(B) Set up the optical gas imaging instrument at a recorded distance from the outlet or leak orifice of the flow meter that will not be exceeded in the actual performance of the leak survey. Do not exceed the operating parameters of the flow meter.

(C) Open the valve on the flow meter to set a flow rate that will create a mass emission rate equal to the mass rate specified in paragraph (i)(2)(i) of this section while observing the gas flow through the optical gas imaging instrument viewfinder. When an image of the gas emission is seen through the viewfinder at the required emission rate, make a record of the reading on the flow meter.

(v) Repeat the procedures specified in paragraphs (i)(2)(ii) through (i)(2)(iv) of this section for each configuration of the optical gas imaging instrument used during the leak survey.

(vi) To use an alternative method to demonstrate daily instrument checks, apply to the Administrator for approval of the alternative under §60.13(i).

(3) Leak Survey Procedure. Operate the optical gas imaging instrument to image every regulated piece of equipment selected for this work practice in accordance with the instrument manufacturer's operating parameters. All emissions imaged by the optical gas imaging instrument are considered to be leaks and are subject to repair. All emissions visible to the naked eye are also considered to be leaks and are subject to repair.

(4) Recordkeeping. You must keep the records described in paragraphs (i)(4)(i) through (i)(4)(vii) of this section:

(i) The equipment, processes, and facilities for which the owner or operator chooses to use the alternative work practice.

(ii) The detection sensitivity level selected from Table 1 to subpart A of this part for the optical gas imaging instrument.

(iii) The analysis to determine the piece of equipment in contact with the lowest mass fraction of chemicals that are detectable, as specified in paragraph (i)(2)(i)(A) of this section.

(iv) The technical basis for the mass fraction of detectable chemicals used in the equation in paragraph (i)(2)(i)(B) of this section.

(v) The daily instrument check. Record the distance, per paragraph (i)(2)(iv)(B) of this section, and the flow meter reading, per paragraph (i)(2)(iv)(C) of this section, at which the leak was imaged. Keep a video record of the daily instrument check for each configuration of the optical gas imaging instrument used during the leak survey (for example, the daily instrument check must be conducted for each lens used). The video record must include a time and date stamp for each daily instrument check. The video record must be kept for 5 years.

(vi) Recordkeeping requirements in the applicable subpart. A video record must be used to document the leak survey results. The video record must include a time and date stamp for each monitoring event. A video record can be used to meet the recordkeeping requirements of the applicable subparts if each piece of regulated equipment selected for this work practice can be identified in the video record. The video record must be kept for 5 years.

(vii) The results of the annual Method 21 screening required in paragraph (h)(7) of this section. Records must be kept for all regulated equipment specified in paragraph (h)(1) of this section. Records must identify the equipment screened, the screening value measured by Method 21, the time and date of the screening, and calibration information required in the existing applicable subpart.

(5) Reporting. Submit the reports required in the applicable subpart. Submit the records of the annual Method 21 screening required in paragraph (h)(7) of this section to the Administrator via e-mail to CCG-ABP@EPA.GOV.

[51 FR 2701, Jan. 21, 1986, as amended at 63 FR 24444, May 4, 1998; 65 FR 61752, Oct. 17, 2000; 73 FR 78209, Dec. 22, 2008]

§60.19 General notification and reporting requirements.

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(a) For the purposes of this part, time periods specified in days shall be measured in calendar days, even if the word "calendar" is absent, unless otherwise specified in an applicable requirement.

(b) For the purposes of this part, if an explicit postmark deadline is not specified in an applicable requirement for the submittal of a notification, application, report, or other written communication to the Administrator, the owner or operator shall postmark the submittal on or before the number of days specified in the applicable requirement. For example, if a notification must be submitted 15 days before a particular event is scheduled to take place, the notification shall be postmarked on or before 15 days preceding the event; likewise, if a notification must be submitted 15 days after a particular event takes place, the notification shall be delivered or postmarked on or before 15 days following the end of the event. The use of reliable non-Government mail carriers that provide indications of verifiable delivery of information required to be submitted to the Administrator, similar to the postmark provided by the U.S. Postal Service, or alternative means of delivery, including the use of electronic media, agreed to by the permitting authority, is acceptable.

(c) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. Procedures governing the implementation of this provision are specified in paragraph (f) of this section.

(d) If an owner or operator of an affected facility in a State with delegated authority is required to submit periodic reports under this part to the State, and if the State has an established timeline for the submission of periodic reports that is consistent with the reporting frequency(ies) specified for such facility under this part, the owner or operator may change the dates by which periodic reports under this part shall be submitted (without changing the frequency of reporting) to be consistent with the State's schedule by mutual agreement between the owner or operator and the State. The allowance in the previous sentence applies in each State beginning 1 year after the affected facility is required to be in compliance with the applicable subpart in this part. Procedures governing the implementation of this provision are specified in paragraph (f) of this section.

(e) If an owner or operator supervises one or more stationary sources affected by standards set under this part and standards set under part 61, part 63, or both such parts of this chapter, he/she may arrange by mutual agreement between the owner or operator and the Administrator (or the State with an approved permit program) a common schedule on which periodic reports required by each applicable standard shall be submitted throughout the year. The allowance in the previous sentence applies in each State beginning 1 year after the stationary source is required to be in compliance with the applicable subpart in this part, or 1 year after the stationary source is required to be in compliance with the applicable 40 CFR part 61 or part 63 of this chapter standard, whichever is latest. Procedures governing the implementation of this provision are specified in paragraph (f) of this section.

(f)(1)(i) Until an adjustment of a time period or postmark deadline has been approved by the Administrator under paragraphs (f)(2) and (f)(3) of this section, the owner or operator of an affected facility remains strictly subject to the requirements of this part.

(ii) An owner or operator shall request the adjustment provided for in paragraphs (f)(2) and (f)(3) of this section each time he or she wishes to change an applicable time period or postmark deadline specified in this part.

(2) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. An owner or operator who wishes to request a change in a time period or postmark deadline for a particular requirement shall request the adjustment in writing as soon as practicable before the subject activity is required to take place. The owner or operator shall include in the request whatever information he or she considers useful to convince the Administrator that an adjustment is warranted.

(3) If, in the Administrator's judgment, an owner or operator's request for an adjustment to a particular time period or postmark deadline is warranted, the Administrator will approve the adjustment. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an adjustment within 15 calendar days of receiving sufficient information to evaluate the request.

(4) If the Administrator is unable to meet a specified deadline, he or she will notify the owner or operator of any significant delay and inform the owner or operator of the amended schedule.

[59 FR 12428, Mar. 16, 1994, as amended at 64 FR 7463, Feb. 12, 1998]

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Table 1 to Subpart A of Part 60-Detection Sensitivity Levels (grams per hour)

Monitoring frequency per subpart ^a	Detection sensitivity level
Bi-Monthly	60
Semi-Quarterly	85
Monthly	100

^aWhen this alternative work practice is used to identify leaking equipment, the owner or operator must choose one of the monitoring frequencies listed in this table in lieu of the monitoring frequency specified in the applicable subpart. Bi-monthly means every other month. Semi-quarterly means twice per quarter. Monthly means once per month.

[73 FR 78211, Dec. 22, 2008]

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Title 40: Protection of Environment

PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

Subpart WWW—Standards of Performance for Municipal Solid Waste Landfills

SOURCE: 61 FR 9919, Mar. 12, 1996, unless otherwise noted.

§60.750 Applicability, designation of affected facility, and delegation of authority.

(a) The provisions of this subpart apply to each municipal solid waste landfill that commenced construction, reconstruction or modification on or after May 30, 1991. Physical or operational changes made to an existing MSW landfill solely to comply with subpart Cc of this part are not considered construction, reconstruction, or modification for the purposes of this section.

(b) The following authorities shall be retained by the Administrator and not transferred to the State: §60.754(a)(5).

(c) Activities required by or conducted pursuant to a CERCLA, RCRA, or State remedial action are not considered construction, reconstruction, or modification for purposes of this subpart.

[61 FR 9919, Mar. 12, 1996, as amended at 63 FR 32750, June 16, 1998]

§60.751 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act or in subpart A of this part.

Active collection system means a gas collection system that uses gas mover equipment.

Active landfill means a landfill in which solid waste is being placed or a landfill that is planned to accept waste in the future.

Closed landfill means a landfill in which solid waste is no longer being placed, and in which no additional solid wastes will be placed without first filing a notification of modification as prescribed under §60.7(a)(4). Once a notification of modification has been filed, and additional solid waste is placed in the landfill, the landfill is no longer closed.

Closure means that point in time when a landfill becomes a closed landfill.

Commercial solid waste means all types of solid waste generated by stores, offices, restaurants, warehouses, and other nonmanufacturing activities, excluding residential and industrial wastes.

Controlled landfill means any landfill at which collection and control systems are required under this subpart as a result of the nonmethane organic compounds emission rate. The landfill is considered controlled at the time a collection and control system design plan is submitted in compliance with §60.752(b)(2)(i).

Design capacity means the maximum amount of solid waste a landfill can accept, as indicated in terms of volume or mass in the most recent permit issued by the State, local, or Tribal agency responsible for regulating the landfill, plus any in-place waste not accounted for in the most recent permit. If the owner or operator chooses to convert the design capacity from volume to mass or from mass to volume to demonstrate its design capacity is less than 2.5 million megagrams or 2.5 million cubic meters, the calculation must include a site specific density, which must be recalculated annually.

Disposal facility means all contiguous land and structures, other appurtenances, and improvements on the land used for the disposal of solid waste.

Emission rate cutoff means the threshold annual emission rate to which a landfill compares its estimated emission rate to determine if control under the regulation is required.

Enclosed combustor means an enclosed firebox which maintains a relatively constant limited peak temperature generally using a limited supply of combustion air. An enclosed flare is considered an enclosed combustor.

Flare means an open combustor without enclosure or shroud.

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Gas mover equipment means the equipment (i.e., fan, blower, compressor) used to transport landfill gas through the header system.

Household waste means any solid waste (including garbage, trash, and sanitary waste in septic tanks) derived from households (including, but not limited to, single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas).

Industrial solid waste means solid waste generated by manufacturing or industrial processes that is not a hazardous waste regulated under Subtitle C of the Resource Conservation and Recovery Act, parts 264 and 265 of this title. Such waste may include, but is not limited to, waste resulting from the following manufacturing processes: electric power generation; fertilizer/agricultural chemicals; food and related products/by-products; inorganic chemicals; iron and steel manufacturing; leather and leather products; nonferrous metals manufacturing/foundries; organic chemicals; plastics and resins manufacturing; pulp and paper industry; rubber and miscellaneous plastic products; stone, glass, clay, and concrete products; textile manufacturing; transportation equipment; and water treatment. This term does not include mining waste or oil and gas waste.

Interior well means any well or similar collection component located inside the perimeter of the landfill waste. A perimeter well located outside the landfilled waste is not an interior well.

Landfill means an area of land or an excavation in which wastes are placed for permanent disposal, and that is not a land application unit, surface impoundment, injection well, or waste pile as those terms are defined under §257.2 of this title.

Lateral expansion means a horizontal expansion of the waste boundaries of an existing MSW landfill. A lateral expansion is not a modification unless it results in an increase in the design capacity of the landfill.

Modification means an increase in the permitted volume design capacity of the landfill by either horizontal or vertical expansion based on its permitted design capacity as of May 30, 1991. Modification does not occur until the owner or operator commences construction on the horizontal or vertical expansion.

Municipal solid waste landfill or MSW landfill means an entire disposal facility in a contiguous geographical space where household waste is placed in or on land. An MSW landfill may also receive other types of RCRA Subtitle D wastes (§257.2 of this title) such as commercial solid waste, nonhazardous sludge, conditionally exempt small quantity generator waste, and industrial solid waste. Portions of an MSW landfill may be separated by access roads. An MSW landfill may be publicly or privately owned. An MSW landfill may be a new MSW landfill, an existing MSW landfill, or a lateral expansion.

Municipal solid waste landfill emissions or MSW landfill emissions means gas generated by the decomposition of organic waste deposited in an MSW landfill or derived from the evolution of organic compounds in the waste.

NMOC means nonmethane organic compounds, as measured according to the provisions of §60.754.

Nondegradable waste means any waste that does not decompose through chemical breakdown or microbiological activity. Examples are, but are not limited to, concrete, municipal waste combustor ash, and metals.

Passive collection system means a gas collection system that solely uses positive pressure within the landfill to move the gas rather than using gas mover equipment.

Sludge means any solid, semisolid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility, exclusive of the treated effluent from a wastewater treatment plant.

Solid waste means any garbage, sludge from a wastewater treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges that are point sources subject to permits under 33 U.S.C. 1342, or source, special nuclear, or by-product material as defined by the Atomic Energy Act of 1954, as amended (42 U.S.C 2011 *et seq.*).

Sufficient density means any number, spacing, and combination of collection system components, including vertical wells, horizontal collectors, and surface collectors, necessary to maintain emission and migration control as determined by measures of performance set forth in this part.

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Sufficient extraction rate means a rate sufficient to maintain a negative pressure at all wellheads in the collection system without causing air infiltration, including any wellheads connected to the system as a result of expansion or excess surface emissions, for the life of the blower.

[61 FR 9919, Mar. 12, 1996, as amended at 63 FR 32750, June 16, 1998; 64 FR 9262, Feb. 24, 1999]

§60.752 Standards for air emissions from municipal solid waste landfills.

(a) Each owner or operator of an MSW landfill having a design capacity less than 2.5 million megagrams by mass or 2.5 million cubic meters by volume shall submit an initial design capacity report to the Administrator as provided in §60.757(a). The landfill may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. Any density conversions shall be documented and submitted with the report. Submittal of the initial design capacity report shall fulfill the requirements of this subpart except as provided for in paragraphs (a)(1) and (a)(2) of this section.

(1) The owner or operator shall submit to the Administrator an amended design capacity report, as provided for in §60.757(a)(3).

(2) When an increase in the maximum design capacity of a landfill exempted from the provisions of §60.752(b) through §60.759 of this subpart on the basis of the design capacity exemption in paragraph (a) of this section results in a revised maximum design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters, the owner or operator shall comply with the provision of paragraph (b) of this section.

(b) Each owner or operator of an MSW landfill having a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters, shall either comply with paragraph (b)(2) of this section or calculate an NMOC emission rate for the landfill using the procedures specified in §60.754. The NMOC emission rate shall be recalculated annually, except as provided in §60.757(b)(1)(ii) of this subpart. The owner or operator of an MSW landfill subject to this subpart with a design capacity greater than or equal to 2.5 million megagrams and 2.5 million cubic meters is subject to part 70 or 71 permitting requirements.

(1) If the calculated NMOC emission rate is less than 50 megagrams per year, the owner or operator shall:

(i) Submit an annual emission report to the Administrator, except as provided for in §60.757(b)(1)(ii); and

(ii) Recalculate the NMOC emission rate annually using the procedures specified in §60.754(a)(1) until such time as the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, or the landfill is closed.

(A) If the NMOC emission rate, upon recalculation required in paragraph (b)(1)(i) of this section, is equal to or greater than 50 megagrams per year, the owner or operator shall install a collection and control system in compliance with paragraph (b)(2) of this section.

(B) If the landfill is permanently closed, a closure notification shall be submitted to the Administrator as provided for in §60.757(d).

(2) If the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, the owner or operator shall:

(i) Submit a collection and control system design plan prepared by a professional engineer to the Administrator within 1 year:

(A) The collection and control system as described in the plan shall meet the design requirements of paragraph (b)(2)(ii) of this section.

(B) The collection and control system design plan shall include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions of §§60.753 through 60.758 proposed by the owner or operator.

(C) The collection and control system design plan shall either conform with specifications for active collection systems in §60.759 or include a demonstration to the Administrator's satisfaction of the sufficiency of the alternative provisions to §60.759.

(D) The Administrator shall review the information submitted under paragraphs (b)(2)(i) (A), (B) and (C) of this section and either approve it, disapprove it, or request that additional information be submitted. Because of the many site-specific

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factors involved with landfill gas system design, alternative systems may be necessary. A wide variety of system designs are possible, such as vertical wells, combination horizontal and vertical collection systems, or horizontal trenches only, leachate collection components, and passive systems.

(ii) Install a collection and control system that captures the gas generated within the landfill as required by paragraphs (b)(2)(ii)(A) or (B) and (b)(2)(iii) of this section within 30 months after the first annual report in which the emission rate equals or exceeds 50 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the emission rate is less than 50 megagrams per year, as specified in §60.757(c)(1) or (2).

(A) An active collection system shall:

(1) Be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control or treatment system equipment;

(2) Collect gas from each area, cell, or group of cells in the landfill in which the initial solid waste has been placed for a period of:

(i) 5 years or more if active; or

(ii) 2 years or more if closed or at final grade.

(3) Collect gas at a sufficient extraction rate;

(4) Be designed to minimize off-site migration of subsurface gas.

(B) A passive collection system shall:

(1) Comply with the provisions specified in paragraphs (b)(2)(ii)(A)(1), (2), and (2)(ii)(A)(4) of this section.

(2) Be installed with liners on the bottom and all sides in all areas in which gas is to be collected. The liners shall be installed as required under §258.40.

(iii) Route all the collected gas to a control system that complies with the requirements in either paragraph (b)(2)(iii) (A), (B) or (C) of this section.

(A) An open flare designed and operated in accordance with §60.18 except as noted in §60.754(e);

(B) A control system designed and operated to reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control, to either reduce NMOC by 98 weight percent or reduce the outlet NMOC concentration to less than 20 parts per million by volume, dry basis as hexane at 3 percent oxygen. The reduction efficiency or parts per million by volume shall be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using the test methods specified in §60.754(d).

(1) If a boiler or process heater is used as the control device, the landfill gas stream shall be introduced into the flame zone.

(2) The control device shall be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in §60.756;

(C) Route the collected gas to a treatment system that processes the collected gas for subsequent sale or use. All emissions from any atmospheric vent from the gas treatment system shall be subject to the requirements of paragraph (b)(2)(iii) (A) or (B) of this section.

(iv) Operate the collection and control device installed to comply with this subpart in accordance with the provisions of §§60.753, 60.755 and 60.756.

(v) The collection and control system may be capped or removed provided that all the conditions of paragraphs (b)(2)(v) (A), (B), and (C) of this section are met:

(A) The landfill shall be a closed landfill as defined in §60.751 of this subpart. A closure report shall be submitted to the Administrator as provided in §60.757(d);

(B) The collection and control system shall have been in operation a minimum of 15 years; and

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(C) Following the procedures specified in §60.754(b) of this subpart, the calculated NMOC gas produced by the landfill shall be less than 50 megagrams per year on three successive test dates. The test dates shall be no less than 90 days apart, and no more than 180 days apart.

(c) For purposes of obtaining an operating permit under title V of the Act, the owner or operator of a MSW landfill subject to this subpart with a design capacity less than 2.5 million megagrams or 2.5 million cubic meters is not subject to the requirement to obtain an operating permit for the landfill under part 70 or 71 of this chapter, unless the landfill is otherwise subject to either part 70 or 71. For purposes of submitting a timely application for an operating permit under part 70 or 71, the owner or operator of a MSW landfill subject to this subpart with a design capacity greater than or equal to 2.5 million megagrams and 2.5 million cubic meters, and not otherwise subject to either part 70 or 71, becomes subject to the requirements of §§70.5(a)(1)(i) or 71.5(a)(1)(i) of this chapter, regardless of when the design capacity report is actually submitted, no later than:

(1) June 10, 1996 for MSW landfills that commenced construction, modification, or reconstruction on or after May 30, 1991 but before March 12, 1996;

(2) Ninety days after the date of commenced construction, modification, or reconstruction for MSW landfills that commence construction, modification, or reconstruction on or after March 12, 1996.

(d) When a MSW landfill subject to this subpart is closed, the owner or operator is no longer subject to the requirement to maintain an operating permit under part 70 or 71 of this chapter if the landfill is not otherwise subject to the requirements of either part 70 or 71 and if either of the following conditions are met:

(1) The landfill was never subject to the requirement for a control system under paragraph (b)(2) of this section; or

(2) The owner or operator meets the conditions for control system removal specified in paragraph (b)(2)(v) of this section.

[61 FR 9919, Mar. 12, 1996, as amended at 63 FR 32751, June 16, 1998; 65 FR 18908, Apr. 10, 2000; 71 FR 55127, Sept. 21, 2006]

§60.753 Operational standards for collection and control systems.

Each owner or operator of an MSW landfill with a gas collection and control system used to comply with the provisions of §60.752(b)(2)(ii) of this subpart shall:

(a) Operate the collection system such that gas is collected from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for:

(1) 5 years or more if active; or

(2) 2 years or more if closed or at final grade;

(b) Operate the collection system with negative pressure at each wellhead except under the following conditions:

(1) A fire or increased well temperature. The owner or operator shall record instances when positive pressure occurs in efforts to avoid a fire. These records shall be submitted with the annual reports as provided in §60.757(f)(1);

(2) Use of a geomembrane or synthetic cover. The owner or operator shall develop acceptable pressure limits in the design plan;

(3) A decommissioned well. A well may experience a static positive pressure after shut down to accommodate for declining flows. All design changes shall be approved by the Administrator;

(c) Operate each interior wellhead in the collection system with a landfill gas temperature less than 55 °C and with either a nitrogen level less than 20 percent or an oxygen level less than 5 percent. The owner or operator may establish a higher operating temperature, nitrogen, or oxygen value at a particular well. A higher operating value demonstration shall show supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens.

(1) The nitrogen level shall be determined using Method 3C, unless an alternative test method is established as allowed by §60.752(b)(2)(i) of this subpart.

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(2) Unless an alternative test method is established as allowed by §60.752(b)(2)(i) of this subpart, the oxygen shall be determined by an oxygen meter using Method 3A or 3C except that:

(i) The span shall be set so that the regulatory limit is between 20 and 50 percent of the span;

(ii) A data recorder is not required;

(iii) Only two calibration gases are required, a zero and span, and ambient air may be used as the span;

(iv) A calibration error check is not required;

(v) The allowable sample bias, zero drift, and calibration drift are ±10 percent.

(d) Operate the collection system so that the methane concentration is less than 500 parts per million above background at the surface of the landfill. To determine if this level is exceeded, the owner or operator shall conduct surface testing around the perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover. The owner or operator may establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan shall be developed that includes a topographical map with the monitoring route and the rationale for any site-specific deviations from the 30 meter intervals. Areas with steep slopes or other dangerous areas may be excluded from the surface testing.

(e) Operate the system such that all collected gases are vented to a control system designed and operated in compliance with §60.752(b)(2)(ii). In the event the collection or control system is inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within 1 hour; and

(f) Operate the control or treatment system at all times when the collected gas is routed to the system.

(g) If monitoring demonstrates that the operational requirements in paragraphs (b), (c), or (d) of this section are not met, corrective action shall be taken as specified in §60.755(a)(3) through (5) or §60.755(c) of this subpart. If corrective actions are taken as specified in §60.755, the monitored exceedance is not a violation of the operational requirements in this section.

[61 FR 9919, Mar. 12, 1996, as amended at 63 FR 32751, June 16, 1998; 65 FR 61778, Oct. 17, 2000]

§60.754 Test methods and procedures.

(a)(1) The landfill owner or operator shall calculate the NMOC emission rate using either the equation provided in paragraph (a)(1)(i) of this section or the equation provided in paragraph (a)(1)(ii) of this section. Both equations may be used if the actual year-to-year solid waste acceptance rate is known, as specified in paragraph (a)(1)(i), for part of the life of the landfill and the actual year-to-year solid waste acceptance rate is unknown, as specified in paragraph (a)(1)(ii), for part of the life of the landfill. The values to be used in both equations are 0.05 per year for k , 170 cubic meters per megagram for L_0 , and 4,000 parts per million by volume as hexane for the C_{NMOC} . For landfills located in geographical areas with a thirty year annual average precipitation of less than 25 inches, as measured at the nearest representative official meteorological site, the k value to be used is 0.02 per year.

(i) The following equation shall be used if the actual year-to-year solid waste acceptance rate is known.

$$M_{NMOC} = \sum_{i=1}^n 2 k L_0 M_i (e^{-k t_i}) (C_{NMOC}) (3.6 \times 10^{-9})$$

where,

M_{NMOC} = Total NMOC emission rate from the landfill, megagrams per year

k = methane generation rate constant, year⁻¹

L_0 = methane generation potential, cubic meters per megagram solid waste

M_i = mass of solid waste in the i^{th} section, megagrams

t_i = age of the i^{th} section, years

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C_{NMOC} = concentration of NMOC, parts per million by volume as hexane

3.6×10^{-9} = conversion factor

The mass of nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating the value for M_i if documentation of the nature and amount of such wastes is maintained.

(ii) The following equation shall be used if the actual year-to-year solid waste acceptance rate is unknown.

$$M_{NMOC} = 2L_0 R (e^{-kt} - e^{-kI}) C_{NMOC} (3.6 \times 10^{-9})$$

Where:

M_{NMOC} = mass emission rate of NMOC, megagrams per year

L_0 = methane generation potential, cubic meters per megagram solid waste

R = average annual acceptance rate, megagrams per year

k = methane generation rate constant, year⁻¹

t = age of landfill, years

C_{NMOC} = concentration of NMOC, parts per million by volume as hexane

c = time since closure, years; for active landfill $c=0$ and e^{-kI}

3.6×10^{-9} = conversion factor

The mass of nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating the value of R , if documentation of the nature and amount of such wastes is maintained.

(2) *Tier 1.* The owner or operator shall compare the calculated NMOC mass emission rate to the standard of 50 megagrams per year.

(i) If the NMOC emission rate calculated in paragraph (a)(1) of this section is less than 50 megagrams per year, then the landfill owner shall submit an emission rate report as provided in §60.757(b)(1), and shall recalculate the NMOC mass emission rate annually as required under §60.752(b)(1).

(ii) If the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, then the landfill owner shall either comply with §60.752(b)(2), or determine a site-specific NMOC concentration and recalculate the NMOC emission rate using the procedures provided in paragraph (a)(3) of this section.

(3) *Tier 2.* The landfill owner or operator shall determine the NMOC concentration using the following sampling procedure. The landfill owner or operator shall install at least two sample probes per hectare of landfill surface that has retained waste for at least 2 years. If the landfill is larger than 25 hectares in area, only 50 samples are required. The sample probes should be located to avoid known areas of nondegradable solid waste. The owner or operator shall collect and analyze one sample of landfill gas from each probe to determine the NMOC concentration using Method 25 or 25C of appendix A of this part. Method 18 of appendix A of this part may be used to analyze the samples collected by the Method 25 or 25C sampling procedure. Taking composite samples from different probes into a single cylinder is allowed; however, equal sample volumes must be taken from each probe. For each composite, the sampling rate, collection times, beginning and ending cylinder vacuums, or alternative volume measurements must be recorded to verify that composite volumes are equal. Composite sample volumes should not be less than one liter unless evidence can be provided to substantiate the accuracy of smaller volumes. Terminate compositing before the cylinder approaches ambient pressure where measurement accuracy diminishes. If using Method 18, the owner or operator must identify all compounds in the sample and, as a minimum, test for those compounds published in the most recent Compilation of Air Pollutant Emission Factors (AP-42), minus carbon monoxide, hydrogen sulfide, and mercury. As a minimum, the instrument must be calibrated for each of the compounds on the list. Convert the concentration of each Method 18 compound to C_{NMOC} as hexane by multiplying by the ratio of its carbon atoms divided by six. If more than the required number of samples are taken, all samples must be used in the analysis. The landfill owner or operator must divide the NMOC concentration from Method 25 or 25C of appendix A of this part by six to convert from C_{NMOC} as carbon to C_{NMOC} as hexane. If the landfill has an active or passive gas removal system in place, Method 25 or 25C samples may be collected from these systems instead of surface probes provided the removal system can be shown to provide sampling as representative as the two sampling probe per hectare requirement. For active collection

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systems, samples may be collected from the common header pipe before the gas moving or condensate removal equipment. For these systems, a minimum of three samples must be collected from the header pipe.

(i) The landfill owner or operator shall recalculate the NMOC mass emission rate using the equations provided in paragraph (a)(1)(i) or (a)(1)(ii) of this section and using the average NMOC concentration from the collected samples instead of the default value in the equation provided in paragraph (a)(1) of this section.

(ii) If the resulting mass emission rate calculated using the site-specific NMOC concentration is equal to or greater than 50 megagrams per year, then the landfill owner or operator shall either comply with §60.752(b)(2), or determine the site-specific methane generation rate constant and recalculate the NMOC emission rate using the site-specific methane generation rate using the procedure specified in paragraph (a)(4) of this section.

(iii) If the resulting NMOC mass emission rate is less than 50 megagrams per year, the owner or operator shall submit a periodic estimate of the emission rate report as provided in §60.757(b)(1) and retest the site-specific NMOC concentration every 5 years using the methods specified in this section.

(4) *Tier 3.* The site-specific methane generation rate constant shall be determined using the procedures provided in Method 2E of appendix A of this part. The landfill owner or operator shall estimate the NMOC mass emission rate using equations in paragraph (a)(1)(i) or (a)(1)(ii) of this section and using a site-specific methane generation rate constant k , and the site-specific NMOC concentration as determined in paragraph (a)(3) of this section instead of the default values provided in paragraph (a)(1) of this section. The landfill owner or operator shall compare the resulting NMOC mass emission rate to the standard of 50 megagrams per year.

(i) If the NMOC mass emission rate as calculated using the site-specific methane generation rate and concentration of NMOC is equal to or greater than 50 megagrams per year, the owner or operator shall comply with §60.752(b)(2).

(ii) If the NMOC mass emission rate is less than 50 megagrams per year, then the owner or operator shall submit a periodic emission rate report as provided in §60.757(b)(1) and shall recalculate the NMOC mass emission rate annually, as provided in §60.757(b)(1) using the equations in paragraph (a)(1) of this section and using the site-specific methane generation rate constant and NMOC concentration obtained in paragraph (a)(3) of this section. The calculation of the methane generation rate constant is performed only once, and the value obtained from this test shall be used in all subsequent annual NMOC emission rate calculations.

(5) The owner or operator may use other methods to determine the NMOC concentration or a site-specific k as an alternative to the methods required in paragraphs (a)(3) and (a)(4) of this section if the method has been approved by the Administrator.

(b) After the installation of a collection and control system in compliance with §60.755, the owner or operator shall calculate the NMOC emission rate for purposes of determining when the system can be removed as provided in §60.752(b)(2)(v), using the following equation:

$$M_{NMOC} = 1.89 \times 10^{-3} Q_{LFG} C_{NMOC}$$

where,

M_{NMOC} = mass emission rate of NMOC, megagrams per year

Q_{LFG} = flow rate of landfill gas, cubic meters per minute

C_{NMOC} = NMOC concentration, parts per million by volume as hexane

(1) The flow rate of landfill gas, Q_{LFG} , shall be determined by measuring the total landfill gas flow rate at the common header pipe that leads to the control device using a gas flow measuring device calibrated according to the provisions of section 4 of Method 2E of appendix A of this part.

(2) The average NMOC concentration, C_{NMOC} , shall be determined by collecting and analyzing landfill gas sampled from the common header pipe before the gas moving or condensate removal equipment using the procedures in Method 25C or Method 18 of appendix A of this part. If using Method 18 of appendix A of this part, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). The sample location on the common header pipe shall be before any condensate removal or other gas refining units. The landfill owner or operator shall divide the NMOC concentration from Method 25C of appendix A of this part by six to convert from C_{NMOC} as carbon to C_{NMOC} as hexane.

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(3) The owner or operator may use another method to determine landfill gas flow rate and NMOC concentration if the method has been approved by the Administrator.

(c) When calculating emissions for PSD purposes, the owner or operator of each MSW landfill subject to the provisions of this subpart shall estimate the NMOC emission rate for comparison to the PSD major source and significance levels in §§51.166 or 52.21 of this chapter using AP-42 or other approved measurement procedures.

(d) For the performance test required in §60.752(b)(2)(iii)(B), Method 25, 25C, or Method 18 of appendix A of this part must be used to determine compliance with the 98 weight-percent efficiency or the 20 ppmv outlet concentration level, unless another method to demonstrate compliance has been approved by the Administrator as provided by §60.752(b)(2)(i)(B). Method 3 or 3A shall be used to determine oxygen for correcting the NMOC concentration as hexane to 3 percent. In cases where the outlet concentration is less than 50 ppm NMOC as carbon (8 ppm NMOC as hexane), Method 25A should be used in place of Method 25. If using Method 18 of appendix A of this part, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). The following equation shall be used to calculate efficiency:

$$\text{Control Efficiency} = (\text{NMOC}_{\text{in}} - \text{NMOC}_{\text{out}}) / (\text{NMOC}_{\text{in}})$$

where,

NMOC_{in} = mass of NMOC entering control device

NMOC_{out} = mass of NMOC exiting control device

(e) For the performance test required in §60.752(b)(2)(iii)(A), the net heating value of the combusted landfill gas as determined in §60.18(f)(3) is calculated from the concentration of methane in the landfill gas as measured by Method 3C. A minimum of three 30-minute Method 3C samples are determined. The measurement of other organic components, hydrogen, and carbon monoxide is not applicable. Method 3C may be used to determine the landfill gas molecular weight for calculating the flare gas exit velocity under §60.18(f)(4).

[61 FR 9919, Mar. 12, 1996, as amended at 63 FR 32751, June 16, 1998; 65 FR 18908, Apr. 10, 2000; 65 FR 61778, Oct. 17, 2000; 71 FR 55127, Sept. 21, 2006]

§60.755 Compliance provisions.

(a) Except as provided in §60.752(b)(2)(i)(B), the specified methods in paragraphs (a)(1) through (a)(6) of this section shall be used to determine whether the gas collection system is in compliance with §60.752(b)(2)(ii).

(1) For the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine compliance with §60.752(b)(2)(ii)(A)(1), one of the following equations shall be used. The k and L₀ kinetic factors should be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42) or other site specific values demonstrated to be appropriate and approved by the Administrator. If k has been determined as specified in §60.754(a)(4), the value of k determined from the test shall be used. A value of no more than 15 years shall be used for the intended use period of the gas mover equipment. The active life of the landfill is the age of the landfill plus the estimated number of years until closure.

(i) For sites with unknown year-to-year solid waste acceptance rate:

$$Q_m = 2L_0 R (e^{-kt} - e^{-k(t+c)})$$

where,

Q_m = maximum expected gas generation flow rate, cubic meters per year

L₀ = methane generation potential, cubic meters per megagram solid waste

R = average annual acceptance rate, megagrams per year

k = methane generation rate constant, year⁻¹

t = age of the landfill at equipment installation plus the time the owner or operator intends to use the gas mover equipment or active life of the landfill, whichever is less. If the equipment is installed after closure, t is the age of the landfill at installation, years

c = time since closure, years (for an active landfill c = 0 and e^{-kc} = 1)

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(ii) For sites with known year-to-year solid waste acceptance rate:

$$Q_M = \sum_{i=1}^n 2 k L_0 M_i (e^{-kt_i})$$

where,

Q_M = maximum expected gas generation flow rate, cubic meters per year

k = methane generation rate constant, year⁻¹

L₀ = methane generation potential, cubic meters per megagram solid waste

M_i = mass of solid waste in the ith section, megagrams

t_i = age of the ith section, years

(iii) If a collection and control system has been installed, actual flow data may be used to project the maximum expected gas generation flow rate instead of, or in conjunction with, the equations in paragraphs (a)(1) (i) and (ii) of this section. If the landfill is still accepting waste, the actual measured flow data will not equal the maximum expected gas generation rate, so calculations using the equations in paragraphs (a)(1) (i) or (ii) or other methods shall be used to predict the maximum expected gas generation rate over the intended period of use of the gas control system equipment.

(2) For the purposes of determining sufficient density of gas collectors for compliance with §60.752(b)(2)(ii)(A)(2), the owner or operator shall design a system of vertical wells, horizontal collectors, or other collection devices, satisfactory to the Administrator, capable of controlling and extracting gas from all portions of the landfill sufficient to meet all operational and performance standards.

(3) For the purpose of demonstrating whether the gas collection system flow rate is sufficient to determine compliance with §60.752(b)(2)(ii)(A)(3), the owner or operator shall measure gauge pressure in the gas collection header at each individual well, monthly. If a positive pressure exists, action shall be initiated to correct the exceedance within 5 calendar days, except for the three conditions allowed under §60.753(b). If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial measurement of positive pressure. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the Administrator for approval.

(4) Owners or operators are not required to expand the system as required in paragraph (a)(3) of this section during the first 180 days after gas collection system startup.

(5) For the purpose of identifying whether excess air infiltration into the landfill is occurring, the owner or operator shall monitor each well monthly for temperature and nitrogen or oxygen as provided in §60.753(c). If a well exceeds one of these operating parameters, action shall be initiated to correct the exceedance within 5 calendar days. If correction of the exceedance cannot be achieved within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial exceedance. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the Administrator for approval.

(6) An owner or operator seeking to demonstrate compliance with §60.752(b)(2)(ii)(A)(4) through the use of a collection system not conforming to the specifications provided in §60.759 shall provide information satisfactory to the Administrator as specified in §60.752(b)(2)(i)(C) demonstrating that off-site migration is being controlled.

(b) For purposes of compliance with §60.753(a), each owner or operator of a controlled landfill shall place each well or design component as specified in the approved design plan as provided in §60.752(b)(2)(i). Each well shall be installed no later than 60 days after the date on which the initial solid waste has been in place for a period of:

(1) 5 years or more if active; or

(2) 2 years or more if closed or at final grade.

(c) The following procedures shall be used for compliance with the surface methane operational standard as provided in §60.753(d).

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(1) After installation of the collection system, the owner or operator shall monitor surface concentrations of methane along the entire perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals (or a site-specific established spacing) for each collection area on a quarterly basis using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in paragraph (d) of this section.

(2) The background concentration shall be determined by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least 30 meters from the perimeter wells.

(3) Surface emission monitoring shall be performed in accordance with section 4.3.1 of Method 21 of appendix A of this part, except that the probe inlet shall be placed within 5 to 10 centimeters of the ground. Monitoring shall be performed during typical meteorological conditions.

(4) Any reading of 500 parts per million or more above background at any location shall be recorded as a monitored exceedance and the actions specified in paragraphs (c)(4) (i) through (v) of this section shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of §60.753(d).

(i) The location of each monitored exceedance shall be marked and the location recorded.

(ii) Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance shall be made and the location shall be re-monitored within 10 calendar days of detecting the exceedance.

(iii) If the re-monitoring of the location shows a second exceedance, additional corrective action shall be taken and the location shall be monitored again within 10 days of the second exceedance. If the re-monitoring shows a third exceedance for the same location, the action specified in paragraph (c)(4)(v) of this section shall be taken, and no further monitoring of that location is required until the action specified in paragraph (c)(4)(v) has been taken.

(iv) Any location that initially showed an exceedance but has a methane concentration less than 500 ppm methane above background at the 10-day re-monitoring specified in paragraph (c)(4) (ii) or (iii) of this section shall be re-monitored 1 month from the initial exceedance. If the 1-month re-monitoring shows a concentration less than 500 parts per million above background, no further monitoring of that location is required until the next quarterly monitoring period. If the 1-month re-monitoring shows an exceedance, the actions specified in paragraph (c)(4) (iii) or (v) shall be taken.

(v) For any location where monitored methane concentration equals or exceeds 500 parts per million above background three times within a quarterly period, a new well or other collection device shall be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation may be submitted to the Administrator for approval.

(5) The owner or operator shall implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis.

(d) Each owner or operator seeking to comply with the provisions in paragraph (c) of this section shall comply with the following instrumentation specifications and procedures for surface emission monitoring devices:

(1) The portable analyzer shall meet the instrument specifications provided in section 3 of Method 21 of appendix A of this part, except that "methane" shall replace all references to VOC.

(2) The calibration gas shall be methane, diluted to a nominal concentration of 500 parts per million in air.

(3) To meet the performance evaluation requirements in section 3.1.3 of Method 21 of appendix A of this part, the instrument evaluation procedures of section 4.4 of Method 21 of appendix A of this part shall be used.

(4) The calibration procedures provided in section 4.2 of Method 21 of appendix A of this part shall be followed immediately before commencing a surface monitoring survey.

(e) The provisions of this subpart apply at all times, except during periods of start-up, shutdown, or malfunction, provided that the duration of start-up, shutdown, or malfunction shall not exceed 5 days for collection systems and shall not exceed 1 hour for treatment or control devices.

[61 FR 9919, Mar. 12, 1996, as amended at 63 FR 32752, June 16, 1998]

§60.756 Monitoring of operations.

Except as provided in §60.752(b)(2)(i)(B),

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(a) Each owner or operator seeking to comply with §60.752(b)(2)(i)(A) for an active gas collection system shall install a sampling port and a thermometer, other temperature measuring device, or an access port for temperature measurements at each wellhead and:

(1) Measure the gauge pressure in the gas collection header on a monthly basis as provided in §60.755(a)(3); and

(2) Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as provided in §60.755(a)(5); and

(3) Monitor temperature of the landfill gas on a monthly basis as provided in §60.755(a)(5).

(b) Each owner or operator seeking to comply with §60.752(b)(2)(ii) using an enclosed combustor shall calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment:

(1) A temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of ±1 percent of the temperature being measured expressed in degrees Celsius or ±0.5 degrees Celsius, whichever is greater. A temperature monitoring device is not required for boilers or process heaters with design heat input capacity equal to or greater than 44 megawatts.

(2) A device that records flow to or bypass of the control device. The owner or operator shall either:

(i) Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; or

(ii) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

(c) Each owner or operator seeking to comply with §60.752(b)(2)(iii) using an open flare shall install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment:

(1) A heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame.

(2) A device that records flow to or bypass of the flare. The owner or operator shall either:

(i) Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; or

(ii) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

(d) Each owner or operator seeking to demonstrate compliance with §60.752(b)(2)(iii) using a device other than an open flare or an enclosed combustor shall provide information satisfactory to the Administrator as provided in §60.752(b)(2)(i)(B) describing the operation of the control device, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Administrator shall review the information and either approve it, or request that additional information be submitted. The Administrator may specify additional appropriate monitoring procedures.

(e) Each owner or operator seeking to install a collection system that does not meet the specifications in §60.759 or seeking to monitor alternative parameters to those required by §60.753 through §60.756 shall provide information satisfactory to the Administrator as provided in §60.752(b)(2)(i)(B) and (C) describing the design and operation of the collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Administrator may specify additional appropriate monitoring procedures.

(f) Each owner or operator seeking to demonstrate compliance with §60.755(c), shall monitor surface concentrations of methane according to the instrument specifications and procedures provided in §60.755(d). Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of 500 ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring.

[61 FR 9919, Mar. 12, 1996, as amended at 63 FR 32752, June 16, 1998; 65 FR 18909, Apr. 10, 2000]

§60.757 Reporting requirements.

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Except as provided in §60.752(b)(2)(i)(B),

(a) Each owner or operator subject to the requirements of this subpart shall submit an initial design capacity report to the Administrator.

(1) The initial design capacity report shall fulfill the requirements of the notification of the date construction is commenced as required by §60.7(a)(1) and shall be submitted no later than:

(i) June 10, 1996, for landfills that commenced construction, modification, or reconstruction on or after May 30, 1991 but before March 12, 1996 or

(ii) Ninety days after the date of commenced construction, modification, or reconstruction for landfills that commence construction, modification, or reconstruction on or after March 12, 1996.

(2) The initial design capacity report shall contain the following information:

(i) A map or plot of the landfill, providing the size and location of the landfill, and identifying all areas where solid waste may be landfilled according to the permit issued by the State, local, or tribal agency responsible for regulating the landfill.

(ii) The maximum design capacity of the landfill. Where the maximum design capacity is specified in the permit issued by the State, local, or tribal agency responsible for regulating the landfill, a copy of the permit specifying the maximum design capacity may be submitted as part of the report. If the maximum design capacity of the landfill is not specified in the permit, the maximum design capacity shall be calculated using good engineering practices. The calculations shall be provided, along with the relevant parameters as part of the report. The State, Tribal, local agency or Administrator may request other reasonable information as may be necessary to verify the maximum design capacity of the landfill.

(3) An amended design capacity report shall be submitted to the Administrator providing notification of an increase in the design capacity of the landfill, within 90 days of an increase in the maximum design capacity of the landfill to or above 2.5 million megagrams and 2.5 million cubic meters. This increase in design capacity may result from an increase in the permitted volume of the landfill or an increase in the density as documented in the annual recalculation required in §60.758(f).

(b) Each owner or operator subject to the requirements of this subpart shall submit an NMOC emission rate report to the Administrator initially and annually thereafter, except as provided for in paragraphs (b)(1)(ii) or (b)(3) of this section. The Administrator may request such additional information as may be necessary to verify the reported NMOC emission rate.

(1) The NMOC emission rate report shall contain an annual or 5-year estimate of the NMOC emission rate calculated using the formula and procedures provided in §60.754(a) or (b), as applicable.

(i) The initial NMOC emission rate report may be combined with the initial design capacity report required in paragraph (a) of this section and shall be submitted no later than indicated in paragraphs (b)(1)(i)(A) and (B) of this section. Subsequent NMOC emission rate reports shall be submitted annually thereafter, except as provided for in paragraphs (b)(1)(ii) and (b)(3) of this section.

(A) June 10, 1996, for landfills that commenced construction, modification, or reconstruction on or after May 30, 1991, but before March 12, 1996, or

(B) Ninety days after the date of commenced construction, modification, or reconstruction for landfills that commence construction, modification, or reconstruction on or after March 12, 1996.

(ii) If the estimated NMOC emission rate as reported in the annual report to the Administrator is less than 50 megagrams per year in each of the next 5 consecutive years, the owner or operator may elect to submit an estimate of the NMOC emission rate for the next 5-year period in lieu of the annual report. This estimate shall include the current amount of solid waste-in-place and the estimated waste acceptance rate for each year of the 5 years for which an NMOC emission rate is estimated. All data and calculations upon which this estimate is based shall be provided to the Administrator. This estimate shall be revised at least once every 5 years. If the actual waste acceptance rate exceeds the estimated waste acceptance rate in any year reported in the 5-year estimate, a revised 5-year estimate shall be submitted to the Administrator. The revised estimate shall cover the 5-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate.

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(2) The NMOC emission rate report shall include all the data, calculations, sample reports and measurements used to estimate the annual or 5-year emissions.

(3) Each owner or operator subject to the requirements of this subpart is exempted from the requirements of paragraphs (b)(1) and (2) of this section, after the installation of a collection and control system in compliance with §60.752(b)(2), during such time as the collection and control system is in operation and in compliance with §§60.753 and 60.755.

(c) Each owner or operator subject to the provisions of §60.752(b)(2)(i) shall submit a collection and control system design plan to the Administrator within 1 year of the first report required under paragraph (b) of this section in which the emission rate equals or exceeds 50 megagrams per year, except as follows:

(1) If the owner or operator elects to recalculate the NMOC emission rate after Tier 2 NMOC sampling and analysis as provided in §60.754(a)(3) and the resulting rate is less than 50 megagrams per year, annual periodic reporting shall be resumed, using the Tier 2 determined site-specific NMOC concentration, until the calculated emission rate is equal to or greater than 50 megagrams per year or the landfill is closed. The revised NMOC emission rate report, with the recalculated emission rate based on NMOC sampling and analysis, shall be submitted within 180 days of the first calculated exceedance of 50 megagrams per year.

(2) If the owner or operator elects to recalculate the NMOC emission rate after determining a site-specific methane generation rate constant (k), as provided in Tier 3 in §60.754(a)(4), and the resulting NMOC emission rate is less than 50 Mg/yr, annual periodic reporting shall be resumed. The resulting site-specific methane generation rate constant (k) shall be used in the emission rate calculation until such time as the emissions rate calculation results in an exceedance. The revised NMOC emission rate report based on the provisions of §60.754(a)(4) and the resulting site-specific methane generation rate constant (k) shall be submitted to the Administrator within 1 year of the first calculated emission rate exceeding 50 megagrams per year.

(d) Each owner or operator of a controlled landfill shall submit a closure report to the Administrator within 30 days of waste acceptance cessation. The Administrator may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of 40 CFR 258.60. If a closure report has been submitted to the Administrator, no additional wastes may be placed into the landfill without filing a notification of modification as described under §60.7(a)(4).

(e) Each owner or operator of a controlled landfill shall submit an equipment removal report to the Administrator 30 days prior to removal or cessation of operation of the control equipment.

(1) The equipment removal report shall contain all of the following items:

(i) A copy of the closure report submitted in accordance with paragraph (d) of this section;

(ii) A copy of the initial performance test report demonstrating that the 15 year minimum control period has expired; and

(iii) Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 50 megagrams or greater of NMOC per year.

(2) The Administrator may request such additional information as may be necessary to verify that all of the conditions for removal in §60.752(b)(2)(v) have been met.

(f) Each owner or operator of a landfill seeking to comply with §60.752(b)(2) using an active collection system designed in accordance with §60.752(b)(2)(ii) shall submit to the Administrator annual reports of the recorded information in (f)(1) through (f)(6) of this paragraph. The initial annual report shall be submitted within 180 days of installation and start-up of the collection and control system, and shall include the initial performance test report required under §60.8. For enclosed combustion devices and flares, reportable exceedances are defined under §60.758(c).

(1) Value and length of time for exceedance of applicable parameters monitored under §60.756(a), (b), (c), and (d).

(2) Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow as specified under §60.756.

(3) Description and duration of all periods when the control device was not operating for a period exceeding 1 hour and length of time the control device was not operating.

(4) All periods when the collection system was not operating in excess of 5 days.

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(5) The location of each exceedance of the 500 parts per million methane concentration as provided in §60.753(d) and the concentration recorded at each location for which an exceedance was recorded in the previous month.

(6) The date of installation and the location of each well or collection system expansion added pursuant to paragraphs (a)(3), (b), and (c)(4) of §60.755.

(g) Each owner or operator seeking to comply with §60.752(b)(2)(iii) shall include the following information with the initial performance test report required under §60.8:

(1) A diagram of the collection system showing collection system positioning including all wells, horizontal collectors, surface collectors, or other gas extraction devices, including the locations of any areas excluded from collection and the proposed sites for the future collection system expansion;

(2) The data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and the gas mover equipment sizing are based;

(3) The documentation of the presence of asbestos or nondegradable material for each area from which collection wells have been excluded based on the presence of asbestos or nondegradable material;

(4) The sum of the gas generation flow rates for all areas from which collection wells have been excluded based on nonproductivity and the calculations of gas generation flow rate for each excluded area; and

(5) The provisions for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill; and

(6) The provisions for the control of off-site migration.

[61 FR 9919, Mar. 12, 1996, as amended at 63 FR 32752, June 16, 1998; 65 FR 18909, Apr. 10, 2000]

§60.758 Recordkeeping requirements.

(a) Except as provided in §60.752(b)(2)(i)(B), each owner or operator of an MSW landfill subject to the provisions of §60.752(b) shall keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report which triggered §60.752(b), the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.

(b) Except as provided in §60.752(b)(2)(i)(B), each owner or operator of a controlled landfill shall keep up-to-date, readily accessible records for the life of the control equipment of the data listed in paragraphs (b)(1) through (b)(4) of this section as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. Records of the control device vendor specifications shall be maintained until removal.

(1) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §60.752(b)(2)(ii):

(i) The maximum expected gas generation flow rate as calculated in §60.755(a)(1). The owner or operator may use another method to determine the maximum gas generation flow rate, if the method has been approved by the Administrator.

(ii) The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in §60.759(a)(1).

(2) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §60.752(b)(2)(iii) through use of an enclosed combustion device other than a boiler or process heater with a design heat input capacity equal to or greater than 44 megawatts:

(i) The average combustion temperature measured at least every 15 minutes and averaged over the same time period of the performance test.

(ii) The percent reduction of NMOC determined as specified in §60.752(b)(2)(iii)(B) achieved by the control device.

(3) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §60.752(b)(2)(ii)(B)(1) through use of a boiler or process heater of any size: a description of the location at which the collected gas vent stream is introduced into the boiler or process heater over the same time period of the performance testing.

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(4) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §60.752(b)(2)(iii)(A) through use of an open flare, the flare type (i.e., steam-assisted, air-assisted, or nonassisted), all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in §60.18; continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame of the flare flame is absent.

(c) Except as provided in §60.752(b)(2)(i)(B), each owner or operator of a controlled landfill subject to the provisions of this subpart shall keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in §60.756 as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded.

(1) The following constitute exceedances that shall be recorded and reported under §60.757(f):

(i) For enclosed combustors except for boilers and process heaters with design heat input capacity of 44 megawatts (150 million British thermal unit per hour) or greater, all 3-hour periods of operation during which the average combustion temperature was more than 28 °C below the average combustion temperature during the most recent performance test at which compliance with §60.752(b)(2)(iii) was determined.

(ii) For boilers or process heaters, whenever there is a change in the location at which the vent stream is introduced into the flame zone as required under paragraph (b)(3) of this section.

(2) Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible continuous records of the indication of flow to the control device or the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines, specified under §60.756.

(3) Each owner or operator subject to the provisions of this subpart who uses a boiler or process heater with a design heat input capacity of 44 megawatts or greater to comply with §60.752(b)(2)(ii) shall keep an up-to-date, readily accessible record of all periods of operation of the boiler or process heater. (Examples of such records could include records of steam use, fuel use, or monitoring data collected pursuant to other State, local, Tribal, or Federal regulatory requirements.)

(4) Each owner or operator seeking to comply with the provisions of this subpart by use of an open flare shall keep up-to-date, readily accessible continuous records of the flame or flare pilot flame monitoring specified under §60.756(c), and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent.

(d) Except as provided in §60.752(b)(2)(i)(B), each owner or operator subject to the provisions of this subpart shall keep for the life of the collection system an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector.

(1) Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under §60.755(b).

(2) Each owner or operator subject to the provisions of this subpart shall keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste excluded from collection as provided in §60.759(a)(3)(i) as well as any nonproductive areas excluded from collection as provided in §60.759(a)(3)(ii).

(e) Except as provided in §60.752(b)(2)(i)(B), each owner or operator subject to the provisions of this subpart shall keep for at least 5 years up-to-date, readily accessible records of all collection and control system exceedances of the operational standards in §60.753, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance.

(f) Landfill owners or operators who convert design capacity from volume to mass or mass to volume to demonstrate that landfill design capacity is less than 2.5 million megagrams or 2.5 million cubic meters, as provided in the definition of "design capacity", shall keep readily accessible, on-site records of the annual recalculation of site-specific density, design capacity, and the supporting documentation. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.

[61 FR 9919, Mar. 12, 1996, as amended at 63 FR 32752, June 16, 1998; 65 FR 18909, Apr. 10, 2000]

§60.759 Specifications for active collection systems.

(a) Each owner or operator seeking to comply with §60.752(b)(2)(i) shall site active collection wells, horizontal collectors, surface collectors, or other extraction devices at a sufficient density throughout all gas producing areas using the

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following procedures unless alternative procedures have been approved by the Administrator as provided in §60.752(b)(2)(i)(C) and (D):

(1) The collection devices within the interior and along the perimeter areas shall be certified to achieve comprehensive control of surface gas emissions by a professional engineer. The following issues shall be addressed in the design: depths of refuse, refuse gas generation rates and flow characteristics, cover properties, gas system expandability, leachate and condensate management, accessibility, compatibility with filling operations, integration with closure end use, air intrusion control, corrosion resistance, fill settlement, and resistance to the refuse decomposition heat.

(2) The sufficient density of gas collection devices determined in paragraph (a)(1) of this section shall address landfill gas migration issues and augmentation of the collection system through the use of active or passive systems at the landfill perimeter or exterior.

(3) The placement of gas collection devices determined in paragraph (a)(1) of this section shall control all gas producing areas, except as provided by paragraphs (a)(3)(i) and (a)(3)(ii) of this section.

(i) Any segregated area of asbestos or nondegradable material may be excluded from collection if documented as provided under §60.758(d). The documentation shall provide the nature, date of deposition, location and amount of asbestos or nondegradable material deposited in the area, and shall be provided to the Administrator upon request.

(ii) Any nonproductive area of the landfill may be excluded from control, provided that the total of all excluded areas can be shown to contribute less than 1 percent of the total amount of NMOC emissions from the landfill. The amount, location, and age of the material shall be documented and provided to the Administrator upon request. A separate NMOC emissions estimate shall be made for each section proposed for exclusion, and the sum of all such sections shall be compared to the NMOC emissions estimate for the entire landfill. Emissions from each section shall be computed using the following equation:

$$Q_i = 2 k L_0 M_i (e^{-k t_i}) (C_{NMOC}) (3.6 \times 10^{-9})$$

where,

Q_i = NMOC emission rate from the i^{th} section, megagrams per year

k = methane generation rate constant, year⁻¹

L_0 = methane generation potential, cubic meters per megagram solid waste

M_i = mass of the degradable solid waste in the i^{th} section, megagram

t_i = age of the solid waste in the i^{th} section, years

C_{NMOC} = concentration of nonmethane organic compounds, parts per million by volume

3.6×10^{-9} = conversion factor

(iii) The values for k and C_{NMOC} determined in field testing shall be used if field testing has been performed in determining the NMOC emission rate or the radii of influence (this distance from the well center to a point in the landfill where the pressure gradient applied by the blower or compressor approaches zero). If field testing has not been performed, the default values for k , L_0 and C_{NMOC} provided in §60.754(a)(1) or the alternative values from §60.754(a)(5) shall be used. The mass of nondegradable solid waste contained within the given section may be subtracted from the total mass of the section when estimating emissions provided the nature, location, age, and amount of the nondegradable material is documented as provided in paragraph (a)(3)(i) of this section.

(b) Each owner or operator seeking to comply with §60.752(b)(2)(i)(A) shall construct the gas collection devices using the following equipment or procedures:

(1) The landfill gas extraction components shall be constructed of polyvinyl chloride (PVC), high density polyethylene (HDPE) pipe, fiberglass, stainless steel, or other nonporous corrosion resistant material of suitable dimensions to convey projected amounts of gases; withstand installation, static, and settlement forces; and withstand planned overburden or traffic loads. The collection system shall extend as necessary to comply with emission and migration standards. Collection devices such as wells and horizontal collectors shall be perforated to allow gas entry without head loss sufficient to impair performance across the intended extent of control. Perforations shall be situated with regard to the need to prevent excessive air infiltration.

(2) Vertical wells shall be placed so as not to endanger underlying liners and shall address the occurrence of water within the landfill. Holes and trenches constructed for piped wells and horizontal collectors shall be of sufficient cross-section so as to allow for their proper construction and completion including, for example, centering of pipes and placement of gravel backfill. Collection devices shall be designed so as not to allow indirect short circuiting of air into the cover or

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refuse into the collection system or gas into the air. Any gravel used around pipe perforations should be of a dimension so as not to penetrate or block perforations.

(3) Collection devices may be connected to the collection header pipes below or above the landfill surface. The connector assembly shall include a positive closing throttle valve, any necessary seals and couplings, access couplings and at least one sampling port. The collection devices shall be constructed of PVC, HDPE, fiberglass, stainless steel, or other nonporous material of suitable thickness.

(c) Each owner or operator seeking to comply with §60.752(b)(2)(i)(A) shall convey the landfill gas to a control system in compliance with §60.752(b)(2)(iii) through the collection header pipe(s). The gas mover equipment shall be sized to handle the maximum gas generation flow rate expected over the intended use period of the gas moving equipment using the following procedures:

(1) For existing collection systems, the flow data shall be used to project the maximum flow rate. If no flow data exists, the procedures in paragraph (c)(2) of this section shall be used.

(2) For new collection systems, the maximum flow rate shall be in accordance with §60.755(a)(1).

[61 FR 9919, Mar. 12, 1996, as amended at 63 FR 32753, June 16, 1998; 64 FR 9262, Feb. 24, 1999; 65 FR 18909, Apr. 10, 2000]

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APPENDIX NSPS, SUBPART IIII

STANDARDS OF PERFORMANCE FOR STATIONARY COMPRESSION IGNITION INTERNAL COMBUSTION ENGINES

e-CFR data is current as of September 4, 2019

In accordance with Rule 62-204.800, F.A.C., the following federal regulations in Part 63 of Title 40 of the Code of Federal Regulations were adopted by reference. The original federal rule numbering has been retained.

(Permitting Note: The engines covered by this permit are EU 003 through EU 006 are regulated as shown in the following table. Only the Section §60.4200 of Subpart IIII is included. NSPS, Subpart IIII Link.)

EU No.	Engine	Rule Applicability
003	East Side Emergency Diesel Generator (40.2 HP)	Subject to NSPS Subparts A and IIII. Defined in Subpart IIII as a "new unit" that must meet the requirements of NSPS Subpart A and IIII. These stationary CI RICE less than 500 HP, with a displacement less than 10 liters/cylinder, are located at an area source of HAP and commenced construction on or after 7/11/2005 and manufactured after 4/1/2006.
004	Up Front Emergency Diesel Generator (67.1 HP)	
005	Flare Emergency Diesel Generator (167.6 HP)	
006	Leachate Tanks Emergency Diesel Generator (174.3 HP)	
007	West Side Emergency Diesel Generator (50 HP)	

§60.4200 Am I subject to this subpart?

- (a) The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE) and other persons as specified in paragraphs (a)(1) through (4) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.
 - (1) Manufacturers of stationary CI ICE with a displacement of less than 30 liters per cylinder where the model year is:
 - i. 2007 or later, for engines that are not fire pump engines;
 - ii. The model year listed in Table 3 to this subpart or later model year, for fire pump engines.
 - (2) Owners and operators of stationary CI ICE that commence construction after July 11, 2005, where the stationary CI ICE are:
 - i. Manufactured after April 1, 2006, and are not fire pump engines, or
 - ii. Manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006.
 - (3) Owners and operators of any stationary CI ICE that are modified or reconstructed after July 11, 2005 and any person that modifies or reconstructs any stationary CI ICE after July 11, 2005.
 - (4) The provisions of §60.4208 of this subpart are applicable to all owners and operators of stationary CI ICE that commence construction after July 11, 2005.
- (b) The provisions of this subpart are not applicable to stationary CI ICE being tested at a stationary CI ICE test cell/stand.
- (c) If you are an owner or operator of an area source subject to this subpart, you are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart applicable to area sources.
- (d) Stationary CI ICE may be eligible for exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C (or the exemptions described in 40 CFR part 89, subpart J and 40 CFR part 94, subpart J, for engines that would need to be certified to standards in those parts), except that owners and operators, as well as manufacturers, may be eligible to request an exemption for national security.
- (e) Owners and operators of facilities with CI ICE that are acting as temporary replacement units and that are located at a stationary source for less than 1 year and that have been properly certified as meeting the standards that would be applicable to such engine under the appropriate non-road engine provisions, are not required to meet any other provisions under this subpart with regard to such engines.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37967, June 28, 2011]

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APPENDIX RR

FACILITY-WIDE REPORTING REQUIREMENTS

(Version Dated 2/13/2014)

RR1. Reporting Schedule. This table summarizes information for convenience purposes only. It does not supersede any of the terms or conditions of this permit.

Report	Reporting Deadline(s)	Related Condition(s)
Plant Problems/Permit Deviations	Immediately upon occurrence (See RR2.d.)	RR2, RR3
Malfunction Excess Emissions Report	Quarterly (if requested)	RR3
Semi-Annual Monitoring Report	Every 6 months	RR4
Annual Operating Report	April 1	RR5
EAOR Title V Annual Emissions Fee Invoice and Fee Payment	April 1	RR6
Annual Statement of Compliance	Within 60 days after the end of each calendar year (or more frequently if specified by Rule 62-213.440(2), F.A.C., or by any other applicable requirement); and Within 60 days after submittal of a written agreement for transfer of responsibility, or Within 60 days after permanent shutdown.	RR7
Notification of Administrative Permit Corrections	As needed	RR8
Notification of Startup after Shutdown for More than One Year	Minimum of 60 days prior to the intended startup date or, if emergency startup, as soon as possible after the startup date is ascertained	RR9
Permit Renewal Application	225 days prior to the expiration date of permit	TV17
Test Reports	Maximum 45 days following compliance tests	TR8

(Permitting Note: See permit Section III. Emissions Units and Specific Conditions, for any additional Emission Unit-specific reporting requirements.)

RR2. Reports of Problems

- a. Plant Operation-Problems. If the permittee is temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by hazard of fire, wind or by other cause, the permittee shall immediately notify the Department. Notification shall include pertinent information as to the cause of the problem, and what steps are being taken to correct the problem and to prevent its recurrence, and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with Department rules.
 - b. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
 - (1) A description of and cause of noncompliance; and
 - (2) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.
 - c. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.
 - d. "Immediately" shall mean the same day, if during a workday (i.e., 8:00 a.m. - 5:00 p.m.), or the first business day after the incident, excluding weekends and holidays; and, for purposes of Rule 62-4.160(15) and 40 CFR 70.6(a)(3)(ii)(B), "promptly" or "prompt" shall have the same meaning as "immediately".
- [Rule 62-4.130, Rule 62-4.160(8), Rule 62-4.160(15), and Rule 62-213.440(1)(b), F.A.C.; 40 CFR 70.6(a)(3)(ii)(B)]

APPENDIX RR
FACILITY-WIDE REPORTING REQUIREMENTS
 (Version Dated 2/13/2014)

RR3. Reports of Deviations from Permit Requirements. The permittee shall report in accordance with the requirements of Rule 62-210.700(6), F.A.C. (below), and Rule 62-4.130, F.A.C. (condition RR2.), deviations from permit requirements, including those attributable to upset conditions as defined in the permit. Reports shall include the probable cause of such deviations, and any corrective actions or preventive measures taken.

Rule 62-210.700(6): In case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department or the appropriate Local Program in accordance with Rule 62-4.130, F.A.C. (See condition RR2.) A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department. [Rules 62-213.440(1)(b)3.b., and 62-210.700(6)F.A.C.]

RR4. Semi-Annual Monitoring Reports. The permittee shall submit reports of any required monitoring at least every six (6) months. All instances of deviations from permit requirements must be clearly identified in such reports. [Rule 62-213.440(1)(b)3.a., F.A.C.]

RR5. Annual Operating Report. The information required by the Annual Operating Report for Air Pollutant Emitting Facility [including Title V Source Emissions Fee Calculation] (DEP Form No. 62-210.900(5)) shall be submitted by April 1 of each year, for the previous calendar year, to the Department of Environmental Protection's Division of Air Resource Management. Each Title V source shall submit the annual operating report using the DEP's Electronic Annual Operating Report (EAOR) software, unless the Title V source claims a technical or financial hardship by submitting DEP Form No. 62-210.900(5) to the DEP Division of Air Resource Management instead of using the reporting software. Emissions shall be computed in accordance with the provisions of subsection 62-210.370(2), F.A.C. [Rules 62-210.370(2) & (3), 62-210.900 and 62-213.440(3)(a)2., F.A.C.]

RR6. EAOR Title V Annual Emissions Fee Invoice and Fee Payment. Each Title V source permitted to operate in Florida must pay between January 15 and April 1 of each year, an annual emissions fee in an amount determined as set forth in Rule 62-213.205(1), F.A.C.

- a. If the Department has not received the fee by March 1 of the year following the calendar year for which the fee is calculated, the Department will send the primary responsible official of the Title V source a written warning of the consequences for failing to pay the fee by April 1. If the fee is not postmarked or electronically submitted by April 1 of the year due, the Department shall impose, in addition to the fee, a penalty of 50 percent of the amount of the fee unpaid plus interest on such amount computed in accordance with Section 220.807, F.S. If the Department determines that a submitted fee was inaccurately calculated, the Department shall either refund to the permittee any amount overpaid or notify the permittee of any amount underpaid. The Department shall not impose a penalty or interest on any amount underpaid, provided that the permittee has timely remitted payment of at least 90 percent of the amount determined to be due and remits full payment within 60 days after receipt of notice of the amount underpaid. The Department shall waive the collection of underpayment and shall not refund overpayment of the fee, if the amount is less than one percent of the fee due, up to \$50 00. The Department shall make every effort to provide a timely assessment of the adequacy of the submitted fee. Failure to pay timely any required annual emissions fee, penalty, or interest constitutes grounds for permit revocation pursuant to Rule 62-4.100, F.A.C.
- b. Any documentation of actual hours of operation, actual material or heat input, actual production amount, or actual emissions used to calculate the annual emissions fee shall be retained by the owner for a minimum of five years and shall be made available to the Department upon request.
- c. A copy of the EAOR Title V Annual Emissions Fee Invoice generated by the electronic annual operating report (EAOR) application, must be submitted along with the annual emissions fee payment.

[Rules 62-210.370(3), 62-210.900 and 62-213.205, F.A.C.]

RR7. Annual Statement of Compliance.

- a. The permittee shall submit a Statement of Compliance with all terms and conditions of the permit that includes all the provisions of 40 CFR 70.6(c)(5)(iii), incorporated by reference at Rule 62-204.800, F.A.C., using DEP Form No. 62-213.900(2). Such statement shall be accompanied by a certification in accordance with Rule 62-213.420(4), F.A.C., for Title V requirements and with Rule 62-214.350, F.A.C., for Acid Rain requirements. Such statements shall be submitted (postmarked) to the Department and EPA:
 - (1) Annually, within 60 days after the end of each calendar year during which the Title V permit was effective, or more frequently if specified by Rule 62-213.440(2), F.A.C., or by any other applicable requirement; and
 - (2) Within 60 days after submittal of a written agreement for transfer of responsibility as required pursuant to 40 CFR 70.7(d)(1)(iv), adopted and incorporated by reference at Rule 62-204.800, F.A.C., or within 60 days after

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permanent shutdown of a facility permitted under Chapter 62-213, F.A.C.; provided that, in either such case, the reporting period shall be the portion of the calendar year the permit was effective up to the date of transfer of responsibility or permanent facility shutdown, as applicable.

- b. In lieu of individually identifying all applicable requirements and specifying times of compliance with, non-compliance with, and deviation from each, the responsible official may use DEP Form No. 62-213.900(2) as such statement of compliance so long as the responsible official identifies all reportable deviations from and all instances of non-compliance with any applicable requirements and includes all information required by the federal regulation relating to each reportable deviation and instance of non-compliance.
- c. The responsible official may treat compliance with all other applicable requirements as a surrogate for compliance with Rule 62-296.320(2), Objectionable Odor Prohibited.

[Rules 62-213.440(3)(a)2. & 3. and (b), F.A.C.]

RR8. Notification of Administrative Permit Corrections.

A facility owner shall notify the Department by letter of minor corrections to information contained in a permit. Such notifications shall include:

- a. Typographical errors noted in the permit;
- b. Name, address or phone number change from that in the permit;
- c. A change requiring more frequent monitoring or reporting by the permittee;
- d. A change in ownership or operational control of a facility, subject to the following provisions:
 - (1) The Department determines that no other change in the permit is necessary;
 - (2) The permittee and proposed new permittee have submitted an Application for Transfer of Air Permit, and the Department has approved the transfer pursuant to Rule 62-210.300(7), F.A.C.; and
 - (3) The new permittee has notified the Department of the effective date of sale or legal transfer.
- e. Changes listed at 40 CFR 72.83(a)(1), (2), (6), (9) and (10), adopted and incorporated by reference at Rule 62-204.800, F.A.C., and changes made pursuant to Rules 62-214.340(1) and (2), F.A.C., to Title V sources subject to emissions limitations or reductions pursuant to 42 USC ss. 7651-7651g;
- f. Changes listed at 40 CFR 72.83(a)(11) and (12), adopted and incorporated by reference at Rule 62-204.800, F.A.C., to Title V sources subject to emissions limitations or reductions pursuant to 42 USC ss. 7651-7651g, provided the notification is accompanied by a copy of any EPA determination concerning the similarity of the change to those listed at Rule 62-210.360(1)(e), F.A.C.; and
- g. Any other similar minor administrative change at the source.

[Rule 62-210.360, F.A.C.]

RR9. Notification of Startup. The owners or operator of any emissions unit or facility which has a valid air operation permit which has been shut down more than one year, shall notify the Department in writing of the intent to start up such emissions unit or facility, a minimum of 60 days prior to the intended startup date.

- a. The notification shall include information as to the startup date, anticipated emission rates or pollutants released, changes to processes or control devices which will result in changes to emission rates, and any other conditions which may differ from the valid outstanding operation permit.
- b. If, due to an emergency, a startup date is not known 60 days prior thereto, the owner shall notify the Department as soon as possible after the date of such startup is ascertained.

[Rule 62-210.300(5), F.A.C.]

RR10. Report Submission. The permittee shall submit all compliance related notifications and reports required of this permit to the Compliance Authority. {See front of permit for address and phone number.}

RR11. EPA Report Submission. Any reports, data, notifications, certifications, and requests required to be sent to the United States Environmental Protection Agency, Region 4, should be sent to: Air, Pesticides & Toxics Management Division, United States Environmental Protection Agency, Region 4, Sam Nunn Atlanta Federal Center, 61 Forsyth Street SW, Atlanta, GA 30303-8960. Phone: 404/562-9077.

RR12. Acid Rain Report Submission. Acid Rain Program Information shall be submitted, as necessary, to: Department of Environmental Protection, 2600 Blair Stone Road, Mail Station #5510, Tallahassee, Florida 32399-2400. Phone: 850/488-6140. Fax: 850/922-6979.

RR13. Report Certification. All reports shall be accompanied by a certification by a responsible official, pursuant to Rule 62-213.420(4), F.A.C. [Rule 62-213.440(1)(b)3.c, F.A.C.]

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- RR14. Certification by Responsible Official (RO).** In addition to the professional engineering certification required for applications by Rule 62-4.050(3), F.A.C., any application form, report, compliance statement, compliance plan and compliance schedule submitted pursuant to Chapter 62-213, F.A.C., shall contain a certification signed by a responsible official that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Any responsible official who fails to submit any required information or who has submitted incorrect information shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary information or correct information. [Rule 62-213.420(4), F.A.C.]
- RR15. Confidential Information.** Whenever an applicant submits information under a claim of confidentiality pursuant to Section 403.111, F.S., the applicant shall also submit a copy of all such information and claim directly to EPA. Any permittee may claim confidentiality of any data or other information by complying with this procedure. [Rules 62-213.420(2), and 62-213.440(1)(d)6., F.A.C.]
- RR16. Forms and Instructions.** The forms used by the Department in the Title V source operation program are adopted and incorporated by reference in Rule 62-213.900, F.A.C. The forms are listed by rule number, which is also the form number, and with the subject, title, and effective date. Copies of forms may be obtained by writing to the Department of Environmental Protection, Division of Air Resource Management, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, by contacting the appropriate permitting authority or by accessing the Department's web site at: <http://www.dep.state.fl.us/air/rules/forms.htm>.
- a. Annual Operating Report for Air Pollutant Emitting Facility [Including Title V Source Emissions Fee Calculation] (DEP Form No. 62-210.900(5)) (Effective 12/31/2013)
 - b. Statement of Compliance Form (Effective 06/02/2002).
 - c. Responsible Official Notification Form (Effective 06/02/2002).
- [Rule 62-213.900, F.A.C.: Forms (1), (7) and (8)]

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Unless otherwise specified in a specific rule, this permit, or other order, the following testing requirements apply to each emissions unit for which testing is required. An emissions test is an emissions rate test, a concentration test, or an opacity test.

- TR1. Required Number of Test Runs.** For emission rate or concentration limitations, an emissions test shall consist of three valid test runs to determine the total air pollutant emission rate or concentration through the test section of the stack or duct. A valid test run is a test run that meets all requirements of the applicable test method. An emissions test shall also consist of three distinct determinations of any applicable process parameters corresponding to the three distinct test run time periods during which the emission rate or concentration was measured when such data are needed in conjunction with emissions data to compare the emissions test results with the applicable emission limiting standards. Such data shall be obtained pursuant to condition TR5, [subsection 62-297.310(6), F.A.C.]. The three required test runs shall be completed within one consecutive five-day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, results of the two valid runs shall be accepted, provided that the arithmetic mean of the results of the two valid runs is at least 20% below the allowable emission limiting standard. [Rule 62-297.310(2), F.A.C.]
- TR2. Operating Conditions during Emissions Testing.** Testing of emissions shall be conducted with the emissions unit operating at the testing capacity as defined below. If it is impracticable to test at the testing capacity, an emissions unit may be tested at less than the testing capacity. If an emissions unit is tested at less than the testing capacity, another emissions test shall be conducted and completed no later than 60 days after the emissions unit operation exceeds 110% of the capacity at which its most recent emissions test was conducted.
- a. Combustion Turbines. (Reserved)
 - b. All Other Sources. Testing capacity is defined as at least 90 percent of the maximum operation rate specified by the permit.
- [Rule 62-297.310(3), F.A.C.]
- TR3. Calculation of Emission Rate or Concentration.** The emission rate or concentration used for comparison with the relevant standard shall be the arithmetic average of the emission rate or concentration determined by each of the three valid test runs unless otherwise specified in an applicable rule or test method. Data collected during periods of soot blowing shall not be excluded from any calculation of emission rate or concentration. [Rule 62-297.310(4), F.A.C.]
- TR4. Required Sampling Times and Observation Periods.** Unless otherwise specified in an applicable test method, rule, permit, or other order, the owner or operator shall conduct emissions tests in accordance with the following procedures:
- a. *Emission Rate or Concentration Tests.* The required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes, except that for operations that are typically completed within less than the minimum required sampling time, the duration of each test run shall include each occurrence of the operation during the minimum required sampling time. The test period shall include the period of typical operation during which the highest representative emissions are expected to occur.
 - b. *Opacity Tests.* When EPA Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a visible emissions test shall be 60 minutes for emissions units that are subject to a multiple-valued opacity standard, and 30 minutes for all other emissions units, except that for batch, cyclical processes, or other operations that are typically completed within less than the minimum observation period, the period of observation shall include each occurrence of the operation during the minimum observation period. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur.
- [Rule 62-297.310(5), F.A.C.]
- TR5. Determination of Process Parameters.**
- a. *Required Process Equipment.* The owner or operator of an emissions unit for which emissions tests are required shall install, operate, and maintain equipment or instruments necessary to determine process parameters, when such data are needed in conjunction with emissions data to compare emissions test results with applicable emission limiting standards.
 - b. *Accuracy of Process Measurement Equipment.* Equipment or instruments used to directly or indirectly determine process parameters shall be calibrated and adjusted so as to determine the value of the process parameter to within 10 percent of its true value.

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[Rule 62-297.310(6), F.A.C.]

TR6. Required Emissions Testing Facilities.

- a. The owner or operator of an emissions unit, for which an emissions test other than a visible emissions test is required, shall provide emissions testing facilities that meet the requirements of 40 CFR 60.8(e), adopted and incorporated in Rule 62-204.800, F.A.C.
- b. *Permanent Emissions Testing Facilities.* The owner or operator of an emissions unit, for which an emissions test other than a visible emissions test is required on at least an annual basis, shall install and maintain permanent emissions testing facilities.
- c. *Temporary Emissions Testing Facilities.* The owner or operator of an emissions unit that is not required to conduct an emissions test on at least an annual basis may use permanent or temporary emissions testing facilities. If the owner or operator chooses to use temporary emissions testing facilities on an emissions unit, and the Department elects to test the unit, such temporary facilities shall be installed on the emissions unit within 5 days of a request by the Department and remain on the emissions unit until the test is completed.

[Rule 62-297.310(7), F.A.C.]

TR7. Frequency of Emissions Tests. The following provisions apply only to those emissions units that are subject to an emissions-limiting standard for which emissions testing is required.

a. *Annual Emissions Tests Required.*

- (1) Where used in Rules 62-210.310, 62-297.310, or Chapter 62-296, F.A.C., to refer to frequency of required emissions tests, the terms "annual", "annually", and "annually thereafter" shall mean no less frequently than once every calendar year (January 1 – December 31).
- (2) Unless exempted by paragraph a.(5), below [subparagraph 62-297.310(8)(a)5., F.A.C.], the owner or operator shall have an emissions unit tested annually for each of the following pollutants that has an emissions-limiting standard for which emissions testing is required:
 - (a) Each hazardous air pollutant regulated by 40 CFR Part 61, adopted and incorporated by reference at Rule 62-204.800, F.A.C.; and
 - (b) Any other regulated air pollutant, as defined at Rule 62-210.200, F.A.C., or a pollutant designated as a surrogate to a regulated air pollutant by an applicable rule or order, if allowable emissions equal or exceed 100 tons per year.
- (3) Unless exempted by paragraph a.(5), below [subparagraph 62-297.310(8)(a)5., F.A.C.], the owner or operator shall have an emissions unit tested annually for visible emissions, if there is an applicable standard other than the general opacity standard of subparagraph 62-296.320(4)(b)1., F.A.C.
- (4) Unless exempted by paragraph a.(5), below [subparagraph 62-297.310(8)(a)5., F.A.C.], the owner or operator shall have an emissions unit tested annually if a rule, permit or other order issued after March 9, 2015, requires an initial emissions test but is silent as to the frequency of additional testing. A rule, permit, or other order that states that no further testing is required after an initial test, or which expressly lists or describes the tests that shall be conducted annually, is not considered silent as to the frequency of additional testing. Annual testing is not required where a permit or other order issued prior to March 9, 2015, is silent as to the frequency of additional testing.
- (5) Exemptions from paragraphs a. (2), (3) and (4), above [subparagraphs 62-297.310(8)(a)2., 3., and 4., F.A.C.].
 - (a) An annual emissions test shall not be required for any pollutant for which a rule, permit, or other order requires emissions testing at some other specific frequency. If multiple applicable rules, permits, or other orders, other than paragraphs a. (2), (3) and (4), above [subparagraphs 62-297.310(8)(a)2., 3., and 4., F.A.C.], require different testing frequencies, testing must comply with the frequency requirements of each such rule, permit, or order.
 - (b) An annual emissions test shall not be required for any pollutant for which a rule, permit, or other order requires that the pollutant emissions be measured by a continuous emission monitoring system and, either that system meets the performance specifications and quality assurance and quality control measures of 40 CFR part 60, adopted and incorporated in Rule 62-204.800, F.A.C., or that system meets the performance specifications and quality assurance and quality control measures of 40 CFR part 75, adopted and incorporated in Rule 62-204.800, F.A.C.
 - (c) An annual emissions test shall not be required for visible emissions for which a rule, permit, or other order requires that emissions be measured by a continuous opacity monitoring system, and that system meets the performance specifications and quality assurance and quality control measures of 40 CFR part 60, adopted

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and incorporated in Rule 62-204.800, F.A.C., and the manufacturer's recommended quality assurance and quality control measures.

- (d) An annual emissions test shall not be required for any emissions unit that operated for 400 hours or less (including during startup and shutdown) during the calendar year. If an emission unit operates for more than 400 hours during the calendar year, an emissions test shall be completed no later than 60 days after the emissions unit's annual operation exceeds 400 hours, or by the end of the calendar year, whichever is later.
 - (e) An annual emissions test shall not be required for any emissions unit with emissions generated solely from the combustion of fuel, provided that the emissions unit does not burn any liquid fuel or solid fuel or fuel blend for more than 400 hours combined, other than during startup, during the calendar year. If an emissions unit's liquid fuel or solid fuel or fuel blend burning exceeds 400 hours combined during the calendar year, other than during startup, an emissions test shall be completed no later than 60 days after the emissions unit's liquid fuel or solid fuel or fuel blend burning exceeds 400 hours combined, or by the end of the calendar year, whichever is later.
 - (f) An annual emissions test shall not be required for each fuel-specific emissions limit, provided the fuel or fuel blend subject to a fuel-specific limit was not burned for more than 400 hours, other than during startup, during the calendar year. If an emissions unit burns a fuel or fuel blend subject to a fuel-specific emission limit for more than 400 hours, other than during startup, during the calendar year, an emissions test for that fuel or fuel blend shall be completed no later than 60 days after the unit's burning of that fuel or fuel blend exceeds 400 hours, or by the end of the calendar year, whichever is later.
 - (g) An emissions unit shall not be required to start up for the sole purpose of conducting an emissions test to meet the frequency requirements of this condition TR7. [subsection 62-297.310(8), F.A.C.]. In such a case, an emissions test shall be completed no later than 60 days after the emissions unit next starts up.
 - (h) An emissions unit permitted to burn multiple fuels or fuel blends shall not be required to switch fuels for the sole purpose of conducting an annual emissions test to meet the frequency requirements of this condition TR7. [subsection 62-297.310(8), F.A.C.]. In such a case, an emissions test shall be completed no later than 60 days after a switch is made to burn the fuel or fuel blend for which testing is required.
 - (i) An annual emissions test for visible emissions shall not be required for emissions units exempted from air permitting pursuant to paragraphs 62-210.300(3)(a) or (b), F.A.C.; emissions units determined to be insignificant pursuant to paragraph 62-213.430(6)(b), F.A.C.; or, emissions units authorized pursuant to the general permit provisions in subsection 62-210.300(4), F.A.C., unless the general permit specifically requires such testing.
- b. *Emissions Tests Prior to Obtaining an Air Operation Permit.*
- (1) Unless exempted by paragraph b.(3), below [subparagraph 62-297.310(8)(b)3., F.A.C.], prior to obtaining an initial or renewal air operation permit for any emissions unit that is subject to any emission-limiting standard, the owner or operator shall have an emissions test conducted for each such standard to assist in providing reasonable assurance, per Rule 62-4.070, F.A.C., that the emission-limiting standard can be met and shall submit the test report as specified in subsection 62-297.310(10), F.A.C. For an emissions unit at a Title V source, such prior emissions testing is not required provided that an emissions testing compliance plan is included in the Title V permit.
 - (2) For the purpose of renewal of an air operation permit, the owner or operator may satisfy the requirements of paragraph b.(1), above [subparagraph 62-297.310(8)(b)1., F.A.C.], for any emissions unit by submitting the most recent emissions test, as specified in condition TR9. [subsection 62-297.310(10), F.A.C.], provided such test occurred within the term of the current operation permit.
 - (3) Exemptions from paragraph b.(1), above [subparagraph 62-297.310(8)(b)1., F.A.C.].
 - (a) An emissions test shall not be required for any pollutant for which a rule, permit, or other order requires that the emissions be measured by a continuous emission monitoring system and, either that system meets the performance specifications and quality assurance and quality control measures of 40 CFR part 60, adopted and incorporated in Rule 62-204.800, F.A.C., or that system meets the performance specifications and quality assurance and quality control measures of 40 CFR part 75, adopted and incorporated in Rule 62-204.800, F.A.C.
 - (b) An emissions test shall not be required for visible emissions for which a rule, permit, or other order requires that emissions be measured by a continuous opacity monitoring system, and that system meets the performance specifications and quality assurance and quality control measures of 40 CFR part 60, adopted

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and incorporated in Rule 62-204.800, F.A.C., and the manufacturer's recommended quality assurance and quality control measures.

- (c) For the purpose of renewal of an air operation permit, an emissions test shall not be required for any emissions unit that, in the previous five-year period of permitted operation, operated for 400 hours or less (including during startup and shutdown) during each calendar year included in the five-year period of permitted operation. The first time an emissions unit subsequently exceeds 400 hours of operation during a calendar year, emissions must be tested no later than 60 days after 400 hours of operation is exceeded in that calendar year, or by the end of that calendar year, whichever is later.
- (d) For the purpose of renewal of an air operation permit, an emissions test shall not be required for any emissions unit with emissions generated solely from the combustion of fuel provided that, in the previous five-year period of permitted operation, the emissions unit did not burn any liquid fuel or solid fuel or fuel blend for more than 400 hours combined, other than during startup, during each calendar year included in the five-year period of permitted operation. The first time an emissions unit subsequently burns any liquid fuel or solid fuel or fuel blend for more than 400 hours combined during a calendar year, emissions must be tested no later than 60 days after the emissions unit's combined burning of any liquid fuel or solid fuel or fuel blend exceeds 400 hours in that calendar year, or by the end of that calendar year, whichever is later.
- (e) An emissions test shall not be required for each fuel-specific emissions limit prior to the renewal of an air operation permit for an emissions unit provided that, in the previous five-year period of permitted operation, the fuel or fuel blend subject to a fuel-specific limit was not burned for more than 400 hours, other than during startup, during each calendar year included in the five-year period of permitted operation. The first time an emissions unit subsequently burns a fuel or fuel blend subject to a fuel-specific emission limit for more than 400 hours, other than during startup, during any calendar year, an emissions test for that fuel or fuel blend must be completed no later than 60 days after the emissions unit's burning of that fuel or fuel blend exceeds 400 hours in that calendar year, or by the end of that calendar year, whichever is later.
- (f) An emissions unit shall not be required to start up for the sole purpose of conducting an emissions test to meet the frequency requirements of this condition TR7. [subsection 62-297.310(8), F.A.C.]. In such a case, an emissions test shall be completed no later than 60 days after the emissions unit starts up.
- (g) An emissions unit permitted to burn multiple fuels or fuel blends shall not be required to switch fuels for the sole purpose of conducting the emissions test to meet the frequency requirements of this condition TR7. [subsection 62-297.310(8), F.A.C.]. In such a case, an emissions test shall be completed no later than 60 days after a switch is made to burn the fuel or fuel blend for which testing is required.
- (h) An emissions test for visible emissions shall not be required for emissions units exempted from air permitting pursuant to paragraphs 62-210.300(3)(a) or (b), F.A.C.; emissions units determined to be insignificant pursuant to paragraph 62-213.430(6)(b), F.A.C.; or emissions units authorized pursuant to the general permit provisions in subsection 62-210.300(4), F.A.C., unless the general permit specifically requires such testing.
- c. **Special Compliance Tests.** When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit, unless the Department obtains other information sufficient to demonstrate compliance. The owner or operator of the emissions unit shall provide a report on the results of said tests to the Department in accordance with the provisions of condition TR9. [subsection 62-297.310(10), F.A.C.].

[Rule 62-297.310(8), F.A.C.]

- TR8. **Scheduling and Notification.** At least 15 days prior to the date on which each required emissions test is to begin, the owner or operator shall notify the air compliance program identified by permit, unless shorter notice is agreed to by the appropriate air compliance program. The notification shall include the date, time, place of each such test, Facility ID Number, Emission Unit ID Number(s) and description(s), Emission Point Number(s) and description(s), test method(s), pollutant(s) to be tested, along with the name and telephone number of the person who will be responsible for conducting such test(s) for the owner or operator. If a scheduled emissions test needs to be re-scheduled, the owner or operator shall submit to the appropriate air compliance program a revised notification at least seven days prior to the re-scheduled emissions test date or arrange a re-scheduled test date with the appropriate air compliance program by mutual agreement. [Rule 62-297.310(9), F.A.C.]

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[Permitting Note: Air compliance test notifications can now be completed online in the Department's Business Portal. To access this online process, go to <http://www.fdcportal.com/online> and sign in (or register if you're a new user) from the link in the upper right corner of the page. On the Welcome page select the Submit option, then select Registration/Notification, and then click on Air Compliance Test Notifications. Once in the process, just carefully read the instructions on each screen (and under the Help tabs) to complete the notification.]

- TR9. **Test Reports.**
- a. The owner or owner's authorized agent of an emissions unit for which an emissions test is required shall submit a written test report to the compliance authority specified by permit, on the results of each such test as soon as practicable but no later than 45 days after the last run of each test is completed. Test reports may be submitted electronically.
- b. If the owner or owner's authorized agent of an emissions unit for which an emissions test is required submits the results of each such test electronically using the EPA Electronic Reporting Tool (ERT) (<http://www.epa.gov/ehp/ert/>), the written report specified in paragraph a., above [paragraph 62-297.310(10)(a), F.A.C.], need not be submitted, provided the conditions of paragraphs (1) – (3), below [subparagraphs 62-297.310(10)(b)1. through 3., F.A.C.], are met:
- (1) The owner or owner's authorized agent shall submit the test information using the ERT as soon as practicable but no later than 45 days after the last run of each test is completed;
 - (2) The test information shall provide, as a minimum, the information specified in paragraphs c.(1) – (24), below [subparagraphs 62-297.310(10)(c)1. through 24., F.A.C.]; and
 - (3) The compliance authority specified by permit must receive written notification, no later than 45 days after the last run of each test is completed, of the date that the test data was submitted using the ERT.
- c. The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA Method 9 test, shall provide the following information:
- (1) The type, location, and identification number of the emissions unit tested.
 - (2) The facility at which the emissions unit is located.
 - (3) The owner and, if other than the owner, operator of the emissions unit.
 - (4) The type and amount of fuels and materials typically used and processed, and the actual types and amounts of fuels used and material processed during each test run.
 - (5) If necessary in order to compare the emissions test results with an applicable emission limiting standard, the means, raw data, and computations used to determine the amount of fuels used and materials processed.
 - (6) The type of air pollution control devices installed on the emissions unit, their general condition, their typical operating parameters, and their actual operating parameters during each test run.
 - (7) A diagram of the sampling location, including the distance to any upstream and downstream bends or other flow disturbances.
 - (8) The date, starting time, and duration of each sampling run.
 - (9) The test procedures, including any authorized alternative procedures, used.
 - (10) The number of points sampled, and the configuration and location of the sampling plane.
 - (11) For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack or duct, temperatures, average meter temperatures, and sample time per point.
 - (12) The type, manufacturer, and configuration of the sampling equipment used.
 - (13) Data related to the required calibration of the test equipment.
 - (14) Data on the identification, processing, and weights of all filters used.
 - (15) Data on the types and amounts of any chemical solutions used.
 - (16) For each sampling run, data on the amount of pollutant collected from each sampling probe.
 - (17) For each sampling run, data on the amount of pollutant collected from the filters.
 - (18) For each sampling run, data on the amount of pollutant collected from the impingers.
 - (19) The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
 - (20) All measured and calculated data required to be determined by each applicable test procedure for each run.
 - (21) The detailed calculations for one run that relate the collected data to the calculated emission rate or concentration, as applicable.
 - (22) The applicable emission standard, and the resulting maximum allowable emission rate or concentration for the emissions unit, as applicable, plus the test result in the same form and unit of measure.

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- (23) When an emissions test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or owner's authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his or her knowledge.
- (24) For non-Title V sources, a certification by the owner or owner's authorized agent that, to his or her knowledge, all data submitted are true and correct.
- (25) Any report submitted for a Title V source shall contain certification by a responsible official. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

[Rule 62-297.310(10), F.A.C.]

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APPENDIX TV
TITLE V GENERAL CONDITIONS
(Version Dated 02/16/2012)

Operation

- TV1. General Prohibition.** A permitted installation may only be operated, maintained, constructed, expanded or modified in a manner that is consistent with the terms of the permit. [Rule 62-4.030, Florida Administrative Code (F.A.C.)]
- TV2. Validity.** This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department. [Rule 62-4.160(2), F.A.C.]
- TV3. Proper Operation and Maintenance.** The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules. [Rule 62-4.160(6), F.A.C.]
- TV4. Not Federally Enforceable. Health, Safety and Welfare.** To ensure protection of public health, safety, and welfare, any construction, modification, or operation of an installation which may be a source of pollution, shall be in accordance with sound professional engineering practices pursuant to Chapter 471, F.S. [Rule 62-4.050(3), F.A.C.]
- TV5. Continued Operation.** An applicant making timely and complete application for permit, or for permit renewal, shall continue to operate the source under the authority and provisions of any existing valid permit or Florida Electrical Power Plant Siting Certification, and in accordance with applicable requirements of the Acid Rain Program, applicable requirements of the CAIR Program, and applicable requirements of the Hg Budget Trading Program, until the conclusion of proceedings associated with its permit application or until the new permit becomes effective, whichever is later, provided the applicant complies with all the provisions of subparagraphs 62-213.420(1)(b)3., F.A.C. [Rules 62-213.420(1)(b)2., F.A.C.]
- TV6. Changes Without Permit Revision.** Title V sources having a valid permit issued pursuant to Chapter 62-213, F.A.C., may make the following changes without permit revision, provided that sources shall maintain source logs or records to verify periods of operation:
- a. Permitted sources may change among those alternative methods of operation allowed by the source's permit as provided by the terms of the permit;
 - b. A permitted source may implement operating changes, as defined in Rule 62-210.200, F.A.C., after the source submits any forms required by any applicable requirement and provides the Department and EPA with at least 7 days written notice prior to implementation. The source and the Department shall attach each notice to the relevant permit;
 - (1) The written notice shall include the date on which the change will occur, and a description of the change within the permitted source, the pollutants emitted and any change in emissions, and any term or condition becoming applicable or no longer applicable as a result of the change;
 - (2) The permit shield described in Rule 62-213.460, F.A.C., shall not apply to such changes;
 - c. Permitted sources may implement changes involving modes of operation only in accordance with Rule 62-213.415, F.A.C.
- [Rule 62-213.410, F.A.C.]
- TV7. Circumvention.** No person shall circumvent any air pollution control device, or allow the emission of air pollutants without the applicable air pollution control device operating properly. [Rule 62-210.650, F.A.C.]

Compliance

- TV8. Compliance with Chapter 403, F.S., and Department Rules.** Except as provided at Rule 62-213.460, Permit Shield, F.A.C., the issuance of a permit does not relieve any person from complying with the requirements of Chapter 403, F.S., or Department rules. [Rule 62-4.070(7), F.A.C.]
- TV9. Compliance with Federal, State and Local Rules.** Except as provided at Rule 62-213.460, F.A.C., issuance of a permit does not relieve the owner or operator of a facility or an emissions unit from complying with any applicable requirements, any emission limiting standards or other requirements of the air pollution rules of the Department or any other such requirements under federal, state, or local law. [Rule 62-210.300, F.A.C.]

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- TV10. Binding and enforceable.** The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions. [Rule 62-4.160(1), F.A.C.]
- TV11. Timely information.** When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly. [Rule 62-4.160(15), F.A.C.]
- TV12. Halt or reduction of source activity.** It shall not be a defense for a permittee in an enforcement action that maintaining compliance with any permit condition would necessitate halting of or reduction of the source activity. [Rule 62-213.440(1)(d)3., F.A.C.]
- TV13. Final permit action.** Any Title V source shall comply with all the terms and conditions of the existing permit until the Department has taken final action on any permit renewal or any requested permit revision, except as provided at Rule 62-213.412(2), F.A.C. [Rule 62-213.440(1)(d)4., F.A.C.]
- TV14. Sudden and unforeseeable events beyond the control of the source.** A situation arising from sudden and unforeseeable events beyond the control of the source which causes an exceedance of a technology-based emissions limitation because of unavoidable increases in emissions attributable to the situation and which requires immediate corrective action to restore normal operation, shall be an affirmative defense to an enforcement action in accordance with the provisions and requirements of 40 CFR 70.6(g)(2) and (3), hereby adopted and incorporated by reference. [Rule 62-213.440(1)(d)5., F.A.C.]
- TV15. Permit Shield.** Except as provided in Chapter 62-213, F.A.C., compliance with the terms and conditions of a permit issued pursuant to Chapter 62-213, F.A.C., shall, as of the effective date of the permit, be deemed compliance with any applicable requirements in effect, provided that the source included such applicable requirements in the permit application. Nothing in this condition or in any permit shall alter or affect the ability of EPA or the Department to deal with an emergency, the liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance, or the requirements of the Federal Acid Rain Program, the CAIR Program. [Rule 62-213.460, F.A.C.]
- TV16. Compliance With Federal Rules.** A facility or emissions unit subject to any standard or requirement of 40 CFR, Part 60, 61, 63 or 65, adopted and incorporated by reference at Rule 62-204.800, F.A.C., shall comply with such standard or requirement. Nothing in this chapter shall relieve a facility or emissions unit from complying with such standard or requirement, provided, however, that where a facility or emissions unit is subject to a standard established in Rule 62-296, F.A.C., such standard shall also apply. [Rule 62-296.100(3), F.A.C.]

Permit Procedures

- TV17. Permit Revision Procedures.** The permittee shall revise its permit as required by Rules 62-213.400, 62-213.412, 62-213.420, 62-213.430 & 62-4.080, F.A.C.; and, in addition, the Department shall revise permits as provided in Rule 62-4.080, F.A.C. & 40 CFR 70.7(f).
- TV18. Permit Renewal.** The permittee shall renew its permit as required by Rules 62-4.090, 62-213.420(1) and 62-213.430(3), F.A.C. Permits being renewed are subject to the same requirements that apply to permit issuance at the time of application for renewal. Permit renewal applications shall contain that information identified in Rules 62-210.900(1) [Application for Air Permit - Long Form], 62-213.420(3) [Required Information], 62-213.420(6) [CAIR Part Form], F.A.C. Unless a Title V source submits a timely and complete application for permit renewal in accordance with the requirements this rule, the existing permit shall expire and the source's right to operate shall terminate. For purposes of a permit renewal, a timely application is one that is submitted 225 days before the expiration of a permit that expires on or after June 1, 2009. No Title V permit will be issued for a new term except through the renewal process. [Rules 62-213.420 & 62-213.430, F.A.C.]
- TV19. Insignificant Emissions Units or Pollutant-Emitting Activities.** The permittee shall identify and evaluate insignificant emissions units and activities as set forth in Rule 62-213.430(6), F.A.C.

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- TV20. Savings Clause.** If any portion of the final permit is invalidated, the remainder of the permit shall remain in effect. [Rule 62-213.440(1)(d)1., F.A.C.]
- TV21. Suspension and Revocation.**
- a. Permits shall be effective until suspended, revoked, surrendered, or expired and shall be subject to the provisions of Chapter 403, F.S., and rules of the Department.
 - b. Failure to comply with pollution control laws and rules shall be grounds for suspension or revocation.
 - c. A permit issued pursuant to Chapter 62-4, F.A.C., shall not become a vested property right in the permittee. The Department may revoke any permit issued by it if it finds that the permit holder or his agent:
 - (1) Submitted false or inaccurate information in his application or operational reports.
 - (2) Has violated law, Department orders, rules or permit conditions.
 - (3) Has failed to submit operational reports or other information required by Department rules.
 - (4) Has refused lawful inspection under Section 403.091, F.S.
 - d. No revocation shall become effective except after notice is served by personal services, certified mail, or newspaper notice pursuant to Section 120.60(7), F.S., upon the person or persons named therein and a hearing held if requested within the time specified in the notice. The notice shall specify the provision of the law, or rule alleged to be violated, or the permit condition or Department order alleged to be violated, and the facts alleged to constitute a violation thereof. [Rule 62-4.100, F.A.C.]
- TV22. Not federally enforceable. Financial Responsibility.** The Department may require an applicant to submit proof of financial responsibility and may require the applicant to post an appropriate bond to guarantee compliance with the law and Department rules. [Rule 62-4.110, F.A.C.]
- TV23. Emissions Unit Reclassification.**
- a. Any emissions unit whose operation permit has been revoked as provided for in Chapter 62-4, F.A.C., shall be deemed permanently shut down for purposes of Rule 62-212.500, F.A.C. Any emissions unit whose permit to operate has expired without timely renewal or transfer may be deemed permanently shut down, provided, however, that no such emissions unit shall be deemed permanently shut down if, within 20 days after receipt of written notice from the Department, the emissions unit owner or operator demonstrates that the permit expiration resulted from inadvertent failure to comply with the requirements of Rule 62-4.090, F.A.C., and that the owner or operator intends to continue the emissions unit in operation, and either submits an application for an air operation permit or complies with permit transfer requirements, if applicable.
 - b. If the owner or operator of an emissions unit which is so permanently shut down, applies to the Department for a permit to reactivate or operate such emissions unit, the emissions unit will be reviewed and permitted as a new emissions unit. [Rule 62-210.300(6), F.A.C.]
- TV24. Transfer of Permits.** Per Rule 62-4.160(11), F.A.C., this permit is transferable only upon Department approval in accordance with Rule 62-4.120, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department. The permittee transferring the permit shall remain liable for corrective actions that may be required as a result of any violations occurring prior to the sale or legal transfer of the facility. The permittee shall also comply with the requirements of Rule 62-210.300(7), F.A.C., and use DEP Form No. 62-210.900(7). [Rules 62-4.160(11), 62-4.120, and 62-210.300(7), F.A.C.]

Rights, Title, Liability, and Agreements

- TV25. Rights.** As provided in Subsections 403.987(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in this permit. [Rule 62-4.160(3), F.A.C.]
- TV26. Title.** This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title. [Rule 62-4.160(4), F.A.C.]

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TV27. **Liability.** This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of F.S. and Department rules, unless specifically authorized by an order from the Department. [Rule 62-4.160(5), F.A.C.]

TV28. **Agreements.**

- a. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:
 - (1) Have access to and copy any records that must be kept under conditions of the permit;
 - (2) Inspect the facility, equipment, practices, or operations regulated or required under this permit; and,
 - (3) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules. Reasonable time may depend on the nature of the concern being investigated.
- b. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
- c. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

[Rules 62-4.160(7), (9), and (10), F.A.C.]

Recordkeeping and Emissions Computation

TV29. **Permit.** The permittee shall keep this permit or a copy thereof at the work site of the permitted activity. [Rule 62-4.160(12), F.A.C.]

TV30. **Recordkeeping.**

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
- b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least five (5) years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
- c. Records of monitoring information shall include:
 - (1) The date, exact place, and time of sampling or measurements, and the operating conditions at the time of sampling or measurement;
 - (2) The person responsible for performing the sampling or measurements;
 - (3) The dates analyses were performed;
 - (4) The person and company that performed the analyses;
 - (5) The analytical techniques or methods used;
 - (6) The results of such analyses.

[Rules 62-4.160(14) and 62-213.440(1)(b)2., F.A.C.]

TV31. **Emissions Computation.** Pursuant to Rule 62-210.370, F.A.C., the following required methodologies are to be used by the owner or operator of a facility for computing actual emissions, baseline actual emissions, and net emissions increase, as defined at Rule 62-210.200, F.A.C., and for computing emissions for purposes of the reporting requirements of subsection 62-210.370(3) and paragraph 62-212.300(1)(e), F.A.C., or of any permit condition that requires emissions be computed in accordance with Rule 62-210.370, F.A.C. Rule 62-210.370, F.A.C., is not intended to establish methodologies for determining compliance with the emission limitations of any air permit.

For any of the purposes specified above, the owner or operator of a facility shall compute emissions in accordance with the requirements set forth in this subsection.

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- a. **Basic Approach.** The owner or operator shall employ, on a pollutant-specific basis, the most accurate of the approaches set forth below to compute the emissions of a pollutant from an emissions unit; provided, however, that nothing in this rule shall be construed to require installation and operation of any continuous emissions monitoring system (CEMS), continuous parameter monitoring system (CPMS), or predictive emissions monitoring system (PEMS) not otherwise required by rule or permit, nor shall anything in this rule be construed to require performance of any stack testing not otherwise required by rule or permit.
 - (1) If the emissions unit is equipped with a CEMS meeting the requirements of paragraph 62-210.370(2)(b), F.A.C., the owner or operator shall use such CEMS to compute the emissions of the pollutant, unless the owner or operator demonstrates to the department that an alternative approach is more accurate because the CEMS represents still-emerging technology.
 - (2) If a CEMS is not available or does not meet the requirements of paragraph 62-210.370(2)(b), F.A.C., but emissions of the pollutant can be computed pursuant to the mass balance methodology of paragraph 62-210.370(2)(c), F.A.C., the owner or operator shall use such methodology, unless the owner or operator demonstrates to the department that an alternative approach is more accurate.
 - (3) If a CEMS is not available or does not meet the requirements of paragraph 62-210.370(2)(b), F.A.C., and emissions cannot be computed pursuant to the mass balance methodology, the owner or operator shall use an emission factor meeting the requirements of paragraph 62-210.370(2)(d), F.A.C., unless the owner or operator demonstrates to the department that an alternative approach is more accurate.
- b. **Continuous Emissions Monitoring System (CEMS).**
 - (1) An owner or operator may use a CEMS to compute emissions of a pollutant for purposes of this rule provided:
 - (a) The CEMS complies with the applicable certification and quality assurance requirements of 40 CFR Part 60, Appendices B and F, or, for an acid rain unit, the certification and quality assurance requirements of 40 CFR Part 75, all adopted by reference at Rule 62-204.800, F.A.C.; or,
 - (b) The owner or operator demonstrates that the CEMS otherwise represents the most accurate means of computing emissions for purposes of this rule.
 - (2) Stack gas volumetric flow rates used with the CEMS to compute emissions shall be obtained by the most accurate of the following methods as demonstrated by the owner or operator:
 - (a) A calibrated flowmeter that records data on a continuous basis, if available; or
 - (b) The average flow rate of all valid stack tests conducted during a five-year period encompassing the period over which the emissions are being computed, provided all stack tests used shall represent the same operational and physical configuration of the unit.
 - (3) The owner or operator may use CEMS data in combination with an appropriate f-factor, heat input data, and any other necessary parameters to compute emissions if such method is demonstrated by the owner or operator to be more accurate than using a stack gas volumetric flow rate as set forth at subparagraph 62-210.370(2)(b)2., F.A.C., above.
- c. **Mass Balance Calculations.**
 - (1) An owner or operator may use mass balance calculations to compute emissions of a pollutant for purposes of this rule provided the owner or operator:
 - (a) Demonstrates a means of validating the content of the pollutant that is contained in or created by all materials or fuels used in or at the emissions unit; and,
 - (b) Assumes that the emissions unit emits all of the pollutant that is contained in or created by any material or fuel used in or at the emissions unit if it cannot otherwise be accounted for in the process or in the capture and destruction of the pollutant by the unit's air pollution control equipment.
 - (2) Where the vendor of a raw material or fuel which is used in or at the emissions unit publishes a range of pollutant content from such material or fuel, the owner or operator shall use the highest value of the range to compute the emissions, unless the owner or operator demonstrates using site-specific data that another content within the range is more accurate.
 - (3) In the case of an emissions unit using coatings or solvents, the owner or operator shall document, through purchase receipts, records and sales receipts, the beginning and ending VOC inventories, the amount of VOC purchased during the computational period, and the amount of VOC disposed of in the liquid phase during such period.
- d. **Emission Factors.**
 - (1) An owner or operator may use an emission factor to compute emissions of a pollutant for purposes of this rule provided the emission factor is based on site-specific data such as stack test data, where available, unless the owner or operator demonstrates to the department that an alternative emission factor is more accurate. An

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owner or operator using site-specific data to derive an emission factor, or set of factors, shall meet the following requirements.

- (a) If stack test data are used, the emission factor shall be based on the average emissions per unit of input, output, or gas volume, whichever is appropriate, of all valid stack tests conducted during at least a five-year period encompassing the period over which the emissions are being computed, provided all stack tests used shall represent the same operational and physical configuration of the unit.
 - (b) Multiple emission factors shall be used as necessary to account for variations in emission rate associated with variations in the emissions unit's operating rate or operating conditions during the period over which emissions are computed.
 - (c) The owner or operator shall compute emissions by multiplying the appropriate emission factor by the appropriate input, output or gas volume value for the period over which the emissions are computed. The owner or operator shall not compute emissions by converting an emission factor to pounds per hour and then multiplying by hours of operation, unless the owner or operator demonstrates that such computation is the most accurate method available.
- (2) If site-specific data are not available to derive an emission factor, the owner or operator may use a published emission factor directly applicable to the process for which emissions are computed. If no directly-applicable emission factor is available, the owner or operator may use a factor based on a similar, but different, process.
- e. *Accounting for Emissions During Periods of Missing Data from CEMS, PEMS, or CPMS.* In computing the emissions of a pollutant, the owner or operator shall account for the emissions during periods of missing data from CEMS, PEMS, or CPMS using other site-specific data to generate a reasonable estimate of such emissions.
 - f. *Accounting for Emissions During Periods of Startup and Shutdown.* In computing the emissions of a pollutant, the owner or operator shall account for the emissions during periods of startup and shutdown of the emissions unit.
 - g. *Fugitive Emissions.* In computing the emissions of a pollutant from a facility or emissions unit, the owner or operator shall account for the fugitive emissions of the pollutant, to the extent quantifiable, associated with such facility or emissions unit.
 - h. *Recordkeeping.* The owner or operator shall retain a copy of all records used to compute emissions pursuant to this rule for a period of five years from the date on which such emissions information is submitted to the department for any regulatory purpose.

[Rule 62-210.370(1) & (2), F.A.C.]

Responsible Official

TV32. Designation and Update. The permittee shall designate and update a responsible official as required by Rule 62-213.202, F.A.C.

Prohibitions and Restrictions

TV33. Asbestos. This permit does not authorize any demolition or renovation of the facility or its parts or components which involves asbestos removal. This permit does not constitute a waiver of any of the requirements of Chapter 62-257, F.A.C., and 40 CFR 61, Subpart M, National Emission Standard for Asbestos, adopted and incorporated by reference in Rule 62-204.800, F.A.C. Compliance with Chapter 62-257, F.A.C., and 40 CFR 61, Subpart M, Section 61.145, is required for any asbestos demolition or renovation at the source. [40 CFR 61; Rule 62-204.800, F.A.C.; and, Chapter 62-257, F.A.C.]

TV34. Refrigerant Requirements. Any facility having refrigeration equipment, including air conditioning equipment, which uses a Class I or II substance (listed at 40 CFR 82, Subpart A, Appendices A and B), and any facility which maintains, services, or repairs motor vehicles using a Class I or Class II substance as refrigerant must comply with all requirements of 40 CFR 82, Subparts B and F, and with Chapter 62-281, F.A.C.

TV35. Open Burning Prohibited. Unless otherwise authorized by Rule 62-296.320(3) or Chapter 62-256, F.A.C., open burning is prohibited.

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ATTACHMENTS

(INCLUDED FOR CONVENIENCE)

The following attachments are included for convenient reference:

Figure 1, Summary Report-Gaseous and Opacity Excess Emission and Monitoring System Performance (40 CFR 60, July, 1996).

Table H, Permit History.

Table 1, Summary of Air Pollutant Standards and Terms.

Table 2, Compliance Requirements.

FIGURE 1
SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSION AND MONITORING
SYSTEM PERFORMANCE

[Note: This form is referenced in 40 CFR 60.7, Subpart A-General Provisions]

Pollutant (Circle One): SO₂ NO_x TRS H₂S CO Opacity

Reporting period dates: From _____ to _____

Company: _____

Emission Limitation: _____

Address: _____

Monitor Manufacturer: _____

Model No.: _____

Date of Latest CMS Certification or Audit: _____

Process Unit(s) Description: _____

Total source operating time in reporting period ¹: _____

Emission data summary ¹	CMS performance summary ¹
1. Duration of excess emissions in reporting period due to:	1. CMS downtime in reporting period due to:
a. Startup/shutdown	a. Monitor equipment malfunctions
b. Control equipment problems	b. Non-Monitor equipment malfunctions
c. Process problems	c. Quality assurance calibration
d. Other known causes	d. Other known causes
e. Unknown causes	e. Unknown causes
2. Total duration of excess emissions	2. Total CMS Downtime
3. Total duration of excess emissions x (100) / [Total source operating time]	3. [Total CMS Downtime] x (100) / [Total source operating time]
%	%

¹ For opacity, record all times in minutes. For gases, record all times in hours.
² For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in 40 CFR 60.7(c) shall be submitted.

Note: On a separate page, describe any changes since the last in CMS, process or controls.

I certify that the information contained in this report is true, accurate, and complete.

Name: _____

Signature: _____ Date: _____

Title: _____

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TABLE H
PERMIT HISTORY

EU No.	Description	Permit No.	Effective Date	Expiration Date	Project Type
All	Facility	0890428-001-AV	08/23/1999	08/23/2004	Initial Title V Permit
001 & 002	Landfill & Flare	0890428-002-AC	08/23/2003	12/25/2004	Construction (mod.)
001 & 002	Landfill & Flare	0890428-004-AC	12/05/2002	08/23/2004	Administration Correction
All	Facility	0890428-005-AV	05/25/2005	05/22/2010	Title V Renewal
001 & 002	Install gas extraction wells and route to flare	0890428-006-AC	09/19/2006	06/29/2007	Construction (mod.)
001 & 002	Landfill & Flare	0890428-007-AV	06/02/2009	05/22/2010	Title V Revision
All	Facility	0890428-008-AV	04/08/2010	04/08/2015	Title V Renewal
002	Replace blower	0890428-009-AV	04/08/2010	04/08/2020	Title V Renewal
002	Modify blower	0890428-010-AC	10/03/2014	12/31/2015	Construction (mod.)
002, 007	Application withdrawn	0890428-011-AC	09/16/2016	NA	Construction (mod.)
All	Blower and emergency engine	0890428-012-AC	03/22/2017	04/08/2020	Title V Revision
All	Facility	0890428-014-AV	9/15/2019	9/15/2024	Title V Renewal

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TABLE 1
SUMMARY OF AIR POLLUTANT STANDARDS AND TERMS

For convenience purposes only, this table summarizes air pollutant standards and terms related to the electric generating units. It does not supersede any of the terms or conditions of the permit.

Nassau County Board of Commissioners West Nassau Class I Landfill						Facility Id No. 0890428	
Emissions Unit Information						Regulatory Citations	Permit Condition
EU ID	EU Description	Fuel	Hours/Year	Pollutant	Emission Standards		
001	MSW Landfill (Collection System)	---	8760	---	Well Pressure - Negative	40 CFR 60.753(b)	A.5b
				---	Well Temperature < 55°C (131°F)	40 CFR 60.753(c)	A.5c
				---	Well O ₂ < 5% or N ₂ < 20%	40 CFR 60.753(c)	A.5c
				Methane	< 500 ppm above background and surface	40 CFR 60.753(d)	A.5d
002	Open Utility Flare	LFG & Propane	8760	VE0	Visible Emissions = 0% Opacity except for 5 minutes during any 2 consecutive hours	40 CFR 60.18(c)	B.9a
				VE20	Visible Emissions ≤ 20% Opacity, Normal Operations	0890428-010-AC	B.9b

1. The "Equivalent Standards" listed are for informational purposes only.
 2. Municipal Solid Waste (MSW); Degrees Celsius (°C); Degrees Fahrenheit (°F); Oxygen (O₂); Nitrogen (N₂); and parts per million (ppm)

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TABLE 2
SUMMARY OF COMPLIANCE REQUIREMENTS

For convenience purposes only, this table summarizes compliance requirements related to the electric generating units. It does not supersede any of the terms or conditions of the permit.

Nassau County Board of Commissioners West Nassau Class I Landfill					Facility Id No. 0890428			
Emissions Unit Information					Allowable Emissions			
EU ID	EU Description	Pollutant	Parameter	Compliance Method	Test Frequency	Frequency Base Date	Compliance Test Duration	Permit Conditions
001	MSW Landfill (Collection System)	---	Well Pressure	Monitoring	Monthly	---	---	A.10 & A.19
		---	Well Temperature	Monitoring	Monthly	---	---	A.11 & A.19
		---	Well O ₂ or N ₂	Method 3A or 3C	Monthly	---	---	A.11, A.5c & A.19
		Methane	Surface	Method 21	---	---	---	A.13 & A.14
		NMOC	---	Calculations, Method 18 or 25C	Annually	---	---	A.23 & A.24
002	Open Utility Flare	VE0	---	Method 22	Annually	---	2-hours	B.14
		VE20						
		---	Flame Present	Thermocouple & UV Detector	Every 15 minutes	---	---	B.21
		---	LFG to Flare	Flow Meter	Every 15 minutes	---	---	B.21

1. Non-Methane Organic Compounds (NMOC); Landfill gas (LFG)

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EXHIBIT "D"**EXAMPLE OF DISCIPLINES**

The following is a list of disciplines the County will negotiate hourly rates for with the selected firm for the work outlined in this RFQ. **DO NOT SUBMIT HOURLY RATES OR ANY PRICING DETAIL WITH RFQ RESPONSE.** The selected firm will be asked to provide hourly rates during the negotiation phase of the solicitation process.

- Admin/Tech Support
- Administrative Assistant I
- Administrative Assistant II
- Associate Engineer / CADD
- CADD Technician
- CADD Technician I
- Clerical Services
- Clerk/Word Processor
- Consultant I
- Consultant II
- Draftsperson/CAD/Operator
- Environmental Field Technician
- Environmental Scientist
- Environmental Specialist
- Expert Witness
- Field Technician
- Laborer
- Office Manager
- Paraprofessional
- Principal
- Principal Consultant/ Project Manager Principal Engineer
- Principal Professional Partner
- Professional Geologist
- Professional I
- Professional II
- Project Director
- Project Director / Principal-In-Charge
- Project Engineer
- Project Manager
- Project Manager/Sr. Superintendent
- Project Surveyor
- Regional Manager/QC Officer
- Research Analyst I
- Research Analyst II
- Research Services
- Robotic Crew
- Secretarial
- Senior CADD Technician
- Senior Consultant I
- Senior Consultant II
- Senior Engineer
- Senior Engineer/Professional Engineer
- Senior Principal
- Senior Professional I
- Senior Professional II
- Senior Project Manager
- Senior Scientist/Principal
- Sr. Hydrogeologist
- Staff Hydrogeologist
- Survey Technician
- Technician
- Three Man Survey Crew
- Two Man GPS Survey Crew
- Two Man Survey Crew
- QC Reviewer
- Senior Project Manager
- Project Manager
- Senior Engineer
- Project Engineer/Designer
- Engineer/Designer
- Senior CADD Designer

FORM A
ADDENDA ACKNOWLEDGMENT

Acknowledgment is hereby made of receipt of addenda issued during the solicitation period.	
Addendum # _____ through # _____	
Signature of Person Completing:	Date:
Printed Name:	Title:

FORM B
SWORN STATEMENT
UNDER FLORIDA STATUTE 287.133(3)(a) ON PUBLIC ENTITY CRIMES

TO BE RETURNED WITH BID

THIS MUST BE SIGNED IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICER AUTHORIZED TO ADMINISTER OATHS.

1. This sworn statement is submitted with Bid, Proposal or Contract for _____.
2. This sworn statement is submitted by _____ (entity submitting sworn statement), whose business address is _____ and its Federal Employee Identification Number (FEIN) is _____. (If the entity has no FEIN, include the Social Security Number of the individual signing this sworn statement: _____.)
3. My name is _____ (please print name of individual signing), and my relationship to the entity named above is _____.
4. I understand that a "public entity crime" as defined in Paragraph 287.133(1)(g), Florida Statutes, means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or with the United States, including, but not limited to, any bid or contract for goods or services, any leases for real property, or any contract for the construction or repair of a public building or public work, to be provided to any public entity or an agency or political subdivision of any other state or of the United States and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.
5. I understand that "convicted" or "conviction" as defined in paragraph 287.133(1)(b), Florida Statutes, means a finding of guilt or a conviction or a public entity crime, with or without an adjudication of guilt, in any federal or state trial court of record relating to charges brought by indictment or information after July 1, 1989, as a result of a jury verdict, non-jury trial, or entry of a plea of guilty or nolo contendere.
6. I understand that an "affiliate" as defined in paragraph 287.133(1)(a), Florida Statutes, means:
 - a. A predecessor or successor of a person convicted of a public entity crime; or
 - b. An entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime. The term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate. The ownership by one person of shares constituting a controlling interest in another person, or a pooling of equipment or income among persons when not to fair market value under an arm's length agreement, shall be prima facie case that one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding thirty-six (36) months shall be considered an affiliate.
7. I understand that a "person" as defined in Paragraph 287.133(1)(e), Florida Statutes, means any natural person or entity organized under the laws of any state or of the United States with the legal power to enter into binding contract and which bids or applies to bid on contracts let by a public entity, or which otherwise transacts or applies to transact business with a public entity. The term "person" includes those officers, directors, executives, partners, shareholders, employees,

members, and agents who are active in management of an entity. 8. Based on information and belief, the statement, which I have marked below, is true in relation to the entity submitting this sworn statement. **(Please indicate which statement applies.)**

Neither the entity submitting this sworn statement, nor any of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in management of the entity, nor any affiliate of the entity have been charged with and convicted of a public entity crime subsequent to July 1, 1989.

The entity submitting this sworn statement, or one of more of the officers, directors, executives, partners, shareholders, employees, members, or agents who are active in management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989, and (Please indicate which additional statement applies.)

There has been a proceeding concerning the conviction before a hearing officer of the State of Florida, Division of Administrative Hearings. The final order entered by the Hearing Officer did not place the person or affiliate on the convicted vendor list. (Please attach a copy of the final order.)

The person or affiliate was placed on the convicted vendor list. There has been a subsequent proceeding before a hearing officer of the State of Florida, Division of Administrative Hearings. The final order entered by the hearing officer determined that it was in the public interest to remove the person or affiliate from the convicted vendor list. (Please attach a copy of the final order.)

The person or affiliate has not been placed on the convicted vendor list. (Please describe any action taken by or pending with the Department of General Services.)

Signature

Date

State of: _____

County of: _____

Sworn to (or affirmed) and subscribed before me by means of _____ physical presence or _____ online notarization, this _____ day of _____, 20____ by _____ who is ___ personally known to me or ___ produced _____ as identification.

Notary Public

My commission expires: _____

7. REFERENCES:

List at least three references for which you have provided these services (similar scope/size) in the past five years - preferably government agencies.

Reference #1:

Company/Agency Name: _____
Address: _____
Contract Person: _____
Phone: Email: _____
Project Description: _____
Contract \$ Amount: _____
Date Completed: _____

Reference #2:

Company/Agency Name: _____
Address: _____
Contract Person: _____
Phone: Email: _____
Project Description: _____
Contract \$ Amount: _____
Date Completed: _____

Reference #3:

Company/Agency Name: _____
Address: _____
Contract Person: _____
Phone: Email: _____
Project Description: _____
Contract \$ Amount: _____
Date Completed: _____

8. NOTICE OF PARTIES AND BINDING AUTHORITY

The following information is required if Respondent is selected for award of a contract with the County.

Notice to Parties

All notices, demands, requests for approvals or other communications shall be in writing, and shall be sent by registered or certified mail, postage prepaid, return receipt requested, or overnight delivery service (such as federal express), or courier service or by hand delivery to:

Contractor Name: _____
Attn: _____
Mailing Address: _____

Binding Authority

The person to execute the contract must be an officer of the company. If not an officer of the company, Respondent must provide proof of signing authority. Please provide the name, email address, and phone number of person who will execute the contract, if awarded.

Name of Person to execute contract (if awarded): _____
Title: _____
Email Address: _____
Phone Number: _____

FORM D DRUG FREE WORKPLACE CERTIFICATE

I, the undersigned, in accordance with Florida Statute 287.087, hereby certify that _____ (print or type name of firm):

1. Publishes a written statement notifying that the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance in the workplace named above and specifying actions that will be taken against violations of such prohibition.
2. Informs employees about the dangers of drug abuse in the workplace, the firm's policy of maintaining a drug free working environment, and available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug use violations.
3. Gives each employee engaged in providing commodities or contractual services that are under bid or proposal, a copy of the statement specified above.
4. Notifies the employees that as a condition of working on the commodities or contractual services that are under bid or proposal, the employee will abide by the terms of the statement and will notify the employer of any conviction of, plea of guilty or nolo contendere to, any violation of Chapter 1893, or any controlled substance law of the State of Florida or the United States, for a violation occurring in the work place, no later than five (5) days after such conviction, and requires employees to sign copies of such written statement to acknowledge their receipt.
5. Imposes a sanction on, or requires the satisfactory participation in, a drug abuse assistance or rehabilitation program, if such is available in the employee's community, by any employee who is so convicted.
6. Makes a good faith effort to continue to maintain a drug free workplace through the implementation of a drug free workplace program.

"As a person authorized to sign a statement, I certify that the above-named business, firm, or corporation complies fully with the requirements set forth herein."

Authorized Signature

Date Signed

State of: _____

County of: _____

Sworn to (or affirmed) and subscribed before me by means of _____ physical presence or _____ online notarization, this _____ day of _____, 20__ by _____ who is _____ personally known to me or _____ produced _____ as identification.

Notary Public

My commission expires: _____

FORM E
E-VERIFY AFFIDAVIT

NASSAU COUNTY E-VERIFY FORM UNDER
SECTION 448.095, FLORIDA STATUTES

Project Name: _____
Bid No./Contract No.: _____

DEFINITIONS:

“Contractor” means a person or entity that has entered or is attempting to enter into a contract with a public employer to provide labor, supplies, or services to such employer in exchange for salary, wages, or other remuneration. “Contractor” includes, but is not limited to, a vendor or consultant.

“Subcontractor” means a person or entity that provides labor, supplies, or services to or for a contractor or another subcontractor in exchange for salary, wages, or other remuneration.

“E-Verify System” means an internet-based system operated by the United States Department of Homeland Security that allows participating employers to electronically verify the employment eligibility of newly hired employees.

Effective January 1, 2021, Contractors, shall register with and use the E-Verify System in order to verify the work authorization status of all newly hired employees. Contractor shall register for and utilize the U.S. Department of Homeland Security’s E-Verify System to verify the employment eligibility of:

- a. All persons employed by a Contractor to perform employment duties within Florida during the term of the contract; and
- b. All persons (including subvendors/subconsultants/subcontractors) assigned by Contractor to perform work pursuant to the contract with Nassau County. The Contractor acknowledges and agrees that registration and use of the U.S. Department of Homeland Security’s E-Verify System during the term of the contract is a condition of the contract with Nassau County; and
- c. Should vendor become the successful Contractor awarded for the above-named project, by entering into the contract, the Contractor shall comply with the provisions of Section 448.095, Florida Statutes, “Employment Eligibility”, as amended from time to time. This includes, but is not limited to, registration and utilization of the E-Verify System to verify the work authorization status of all newly hired employees. The Contractor shall also execute the attached affidavit (Attachment “A”) attesting that the Contractor does not employ, contract with, or such affidavit for the duration of the contract; and
- d. Contractor shall also require all subcontractors to execute the attached affidavit (Attachment “B”) attesting that the subcontractor does not employ, contract with, or subcontract with, an unauthorized alien. The Contractor shall maintain a copy of such affidavit for the duration of the contract.

CONTRACT TERMINATION:

- a. If Nassau County has a good faith belief that a Contractor has knowingly violated §448.09(1) or §448.095(2), Florida Statutes, the contract shall be terminated.
- b. If Nassau County has a good faith belief that a subcontractor has knowingly violated §448.09(1) or §448.095(2), Florida Statutes, but the Contractor otherwise complied with Chapter 448, Florida Statutes, Nassau County shall promptly notify the Contractor and order the Contractor to immediately terminate the contract with the subcontractor.
- c. A contract terminated under subparagraph a) or b) is not a breach of contract and may not be considered as such.
- d. Any challenge to termination under this provision must be filed in the Circuit Court no later than twenty (20) calendar days after the date of termination.
- e. If the contract is terminated for a violation of the Statute by the Contractor, the Contractor may not be awarded a public contract for a period of one (1) year after the date of termination.

**FORM E - 1
CONTRACTOR E-VERIFY AFFIDAVIT**

I hereby certify that _____ (Contractor Company Name) does not employ, contract with, or subcontract with an unauthorized alien, and is otherwise in full compliance with Section 448.095, Florida Statutes.

All employees hired on or after January 1, 2021 have had their work authorization status verified through the E-Verify system.

A true and correct copy of _____ (Contractor Company Name) proof of registration in the E-Verify system is attached to this Affidavit.

Print Name: _____
Date: _____

STATE OF FLORIDA
COUNTY OF _____

The foregoing instrument was acknowledged before me by means of physical presence or online notarization, this _____ (Date) by _____ (Name of Officer or Agent, Title of Officer or Agent) of _____ (Name of Contractor Company Acknowledging), a _____ (State or Place of Incorporation) Corporation, on behalf of the Corporation. He/She is personally known to me or has produced _____ as identification.

Notary Public

Printed Name

My Commission Expires: _____

**FORM E - 2
SUBCONTRACTOR E-VERIFY AFFIDAVIT**

I hereby certify that _____ (Subcontractor Company Name) does not employ, contract with, or subcontract with an unauthorized alien, and is otherwise in full compliance with Section 448.095, Florida Statutes.

All employees hired on or after January 1, 2021 have had their work authorization status verified through the E-Verify system.

A true and correct copy of _____ (Subcontractor Company Name) proof of registration in the E-Verify system is attached to this Affidavit.

Print Name: _____
Date: _____

STATE OF FLORIDA
COUNTY OF _____

The foregoing instrument was acknowledged before me by means of physical presence or online notarization, this _____ (Date) by _____ (Name of Officer or Agent, Title of Officer or Agent) of _____ (Name of Contractor Company Acknowledging), a _____ (State or Place of Incorporation) Corporation, on behalf of the Corporation. He/She is personally known to me or has produced _____ as identification.

Notary Public

Printed Name

My Commission Expires: _____

ATTCHMENT ‘T’
CONTRACT FOR PROFESSIONAL SERVICES

THIS CONTRACT is entered into by and between the **Board of County Commissioners of Nassau County**, a political subdivision of the State of Florida, hereinafter referred to as the “County”, and _____, located at _____, hereinafter referred to as the “Consultant”.

WHEREAS, the County desires to obtain professional services for _____. Said services are more fully described in the _____, attached hereto and incorporated herein as Exhibit “A”; and

WHEREAS, the Consultant desires to render certain professional services as described in Exhibit “A”, and has the qualifications, experience, staff and resources to perform those professional services; and

WHEREAS, the County, through a competitive selection process conducted in accordance with the requirements of law and County policy, and based upon the Consultant’s assurance that it has the qualifications, experience, staff and resources, the County has determined that it would be in the best interest of Nassau County to award a contract to the Consultant for the rendering of those services described in Exhibit “A”.

NOW THEREFORE, in consideration of the mutual covenants and agreements hereinafter contained, the parties hereto agree as follows:

SECTION 1. Recitals.

1.1 The above recitals are true and correct and are incorporated herein, in their entirety, by this reference.

SECTION 2. Exhibits.

2.1 The Exhibits listed below are the exhibits incorporated into and made part of this Contract:

Exhibit A VENDOR'S SCOPE OF PROFESSIONAL SERVICES

Exhibit B INSURANCE DOCUMENTS

SECTION 3. Employment of the Consultant.

3.1 The County hereby agrees to engage the Consultant, and the Consultant hereby agrees to perform the professional services set forth in Exhibit "A".

SECTION 4. Scope of Services.

4.1 The Consultant shall provide professional services in accordance with Exhibit "A".

4.2 Services requested by the County or the County's representative that are not set forth in Exhibit "A" shall be considered additional services. Any request for additional services and additional fees shall be mutually agreed upon by the parties in writing.

SECTION 5. The County's Responsibility.

5.1 The County shall provide the Consultant with all required data, information, and services regarding the requirements and objectives for the services under this Contract. The Consultant shall rely upon the accuracy and completeness of any information, reports, data supplied by the County or the County's representative.

5.2 The County hereby designates the _____, or designee, to act on the County's behalf under this Contract. The _____, or designee, under the supervision of the County Manager, shall have complete authority to transmit instructions,

receive information, interpret and define the County's policies and decisions with respect to materials, elements and systems pertinent to the provision of the Consultant's services.

SECTION 6. Term of Contract and Option to Extend or Renew.

6.1 The term of this Contract shall begin upon the execution of this Contract by all parties and shall terminate on _____. The term of this Contract may be extended in one (1) year increments, with no changes in terms or conditions, upon mutual written agreement between the Consultant and the County. Any extension or amendment to this Contract shall be subject to availability of funds of the County as set forth in Section 11 hereinbelow.

6.2. In the event that this Contract is continued beyond the term provided above by mutual consent of the parties and not reduced to writing, this Contract shall be carried out on a month-to-month basis and shall not constitute an implied renewal of the Contract. Said month-to-month extension shall be upon the same terms of the Contract and at the compensation and payment provided herein.

SECTION 7. Compensation.

7.1 The Consultant shall be compensated in an amount not to exceed _____, in accordance with Exhibit "A".

7.2 The Consultant shall prepare and submit to the _____, for approval, an invoice for the services rendered, with a copy provided to invoices@nassaucountyfl.com. Invoices for services shall be paid in accordance with the Florida Prompt Payment Act found at Section 218.70, Florida Statutes. All invoices shall be accompanied by a report or statement identifying the nature of the work performed, the hours required and compensation for the work performed. The report or statement shall show a summary of fees. The County reserves the right to withhold payment to the Consultant for

failure to perform the work in accordance with the provisions of this Contract, and the County shall promptly notify the Consultant in writing if any invoice or report is found to be unacceptable and will specify the reasons therefor. The Consultant shall have thirty (30) days to cure any failure upon written notice. Consultant shall honor all purchase orders or work authorizations issued prior to the expiration of the term of this Contract.

7.3 All representation, indemnifications, warranties and guaranties made in, required by or given in accordance with this Contract, as well as all continuing obligations indicated in this Contract, will survive final payment and termination or completion of this Contract.

7.4 Final Invoice: Consultant shall submit to County Consultant's final/last billing to County clearly marked as "Final Invoice." Submittal of the Final Invoice by Consultant to County shall indicate that all services have been performed by Consultant and that all charges and costs have been invoiced by the Consultant to County and that there is no further work to be performed and no further invoices to be submitted under this Contract.

SECTION 8. Standard of Care.

8.1 The Consultant shall exercise the same degree of care, skill, and diligence in the performance of the services as is ordinarily provided by a professional under similar circumstances, at the same time, and in the same locality. In the County's sole discretion, upon request by the County, the Consultant shall, at no additional cost to the County, re-perform services which in the sole discretion of the County do not meet the foregoing standard of care.

SECTION 9. Equal Opportunity Employment.

9.1 In connection with the work to be performed under this Contract, the Consultant agrees to comply with the applicable provisions of State and Federal Equal Employment Opportunity statutes and regulations.

SECTION 10. Access to Premises.

10.1 The County shall be responsible for providing access to all project sites (if required), and for providing project site specific information.

SECTION 11. Funding.

11.1 The County's performance and obligation under this Contract is contingent upon an annual appropriation by the Board of County Commissioners for subsequent fiscal years and is subject to termination based on lack of funding.

SECTION 12. Expenses.

12.1 The Consultant shall be responsible for all expenses incurred while performing the services under this Contract including, but not limited to, license fees, memberships and dues; automobile and other travel expenses; meals and entertainment; insurance premiums; and all salary, expenses and other compensation paid to the Consultant's agents, if any, hired by the Consultant to complete the work under this Contract.

SECTION 13. Taxes, Liens, Licenses and Permits.

13.1 The Consultant recognizes that the County, by virtue of its sovereignty, is not required to pay any taxes on the services or goods purchased under the terms of this Contract. As such, the Consultant shall refrain from including taxes in any billing. The Consultant is placed on notice that this exemption generally does not apply to nongovernmental entities, contractors, or subcontractors. Any questions regarding this tax exemption shall be addressed to the County Manager.

13.2 The Consultant shall secure and maintain all licenses and permits required to perform the services under this Contract and to pay any and all applicable sales or use tax, or any other tax or assessment which shall be imposed or assessed by any and all governmental

authorities, required under this Contract, and to meet all federal, state, county and municipal laws, ordinances, policies and rules.

13.3 The Consultant acknowledges that property being improved that is titled to the County, shall not be subject to a lien of any kind for any reason. The Consultant shall include notice of such exemptions in any subcontracts and purchase orders issued under this Contract.

SECTION 14. Governing Law, Venue and Compliance with Laws.

14.1 This Contract shall be deemed to have been executed and entered into within the State of Florida and any dispute arising hereunder, shall be governed, interpreted and construed according to the laws of the State of Florida, the Ordinances of Nassau County, and any applicable federal statutes, rules and regulations. Any and all litigation arising under this Contract shall be brought in Nassau County, Florida, and any trial shall be non-jury. Any mediation, pursuant to litigation, shall occur in Nassau County, Florida.

14.2 The Consultant shall comply with applicable regulatory requirements including federal, state, and local laws, rules, regulations, codes, orders, criteria and standards.

SECTION 15. Modifications.

15.1 The terms of this Contract may be modified only upon the written and mutual consent of both parties, and approval by appropriate legal authority in the County.

SECTION 16. Assignment and Subcontracting.

16.1 The Consultant shall not assign, sublet, convey or transfer its interest in this Contract without the prior written consent of the County.

16.2 In order to assign this Contract, or to subcontract any of the work requirements to be performed, the Consultant shall ensure and provide assurances to the County, that any subcontractor selected for work under this Contract has the necessary qualifications and abilities

to perform in accordance with the terms and conditions of this Contract. The Consultant shall provide the County with the names of any subcontractor considered for work under this Contract; the County reserves the right to reject any subcontractor whose qualifications or performance, in the County's sole discretion, are insufficient. The Consultant shall be responsible for all work performed and all expenses incurred with the project. Any subcontract arrangements shall be evidenced by a written document available to the County upon request. The Consultant further agrees that the County shall not be liable to any subcontractor for any expenses or liabilities incurred under the subcontract. The Consultant, at its expense, shall defend the County against such claims.

16.3 The Consultant shall make payments to any of its subcontractors within seven (7) working days after receipt of full or partial payments from the County in accordance with Section 287.0585, Florida Statutes, unless otherwise stated in the contracts between the Consultant and subcontractors. The Consultant's failure to pay its subcontractor(s) within seven (7) working days shall result in a penalty charged against the Consultant and paid to the subcontractors in the amount of one-half of one percent (0.50%) of the amount due per day from the expiration of the period allowed herein for payment. Such penalty shall be in addition to the actual payments owed and shall not exceed fifteen percent (15%) of the outstanding balance due.

SECTION 17. Severability.

17.1 If any section, subsection, sentence, clause, phrase, or portion of this Contract is, for any reason, held invalid, unconstitutional, or unenforceable by any Court of Competent Jurisdiction, such portion shall be deemed as a separate, distinct, and independent provision, and such holding shall not affect the validity of the remaining portions thereof.

SECTION 18. Termination for Default.

18.1 If the Consultant fails to perform any of its obligations under this Contract, and if such default remains uncured for a period of more than fifteen (15) days after notice thereof was given in writing by the County to the Consultant, then the County may, without prejudice to any right or remedy the County may have, terminate this Contract.

18.2 Upon termination of this Contract, the Consultant shall immediately (1) stop work on the date specified; (2) terminate and settle all orders and subcontracts relating to the performance of the terminated work; (3) transfer all work in process, completed work, and other materials related to the terminated work to the County; (4) render to the County all property belonging to the County, including but not limited to, equipment, books, and records.

SECTION 19. Termination for Convenience.

19.1 The County reserves the right to terminate this Contract in whole or part by giving the Consultant written notice at least thirty (30) days prior to the effective date of the termination. Upon receipt of written notice of termination from the County, the Consultant shall only provide those services and/or materials specifically approved or directed by the County. All other rights and duties of the parties under the Contract shall continue during such notice period, and the County shall continue to be responsible to the Consultant for the payment of any obligations to the extent such responsibility has not been excused by breach or default of the Consultant. The Consultant shall promptly contact the County to make arrangements to render to the County all property belonging to the County, including but not limited to, equipment, books, and records.

SECTION 20. Nondisclosure of Proprietary Information.

20.1 The Consultant shall consider all information provided by the County and all reports, studies, calculations, and other documentation resulting from the Consultant's

performance of the services to be proprietary unless such information is available from public sources. The Consultant shall not publish or disclose proprietary information for any purpose other than the performance of the services without the prior written authorization of the County or in response to legal process.

SECTION 21. Contingent Fees.

21.1 The Consultant warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for the Consultant to solicit or secure this Contract and that it has not paid or agreed to pay any person, company, corporation, individual or firm, other than a bona fide employee working solely for the Consultant, any fee, commission, percentage, gift or any other consideration contingent upon or resulting from the award or making of this Contract.

SECTION 22. Ownership of Documents.

22.1 The Consultant shall be required to work in harmony with other County consultants relative to providing information requested in a timely manner and in the specified form. All documents, records, disks, original drawings, or other information shall become the property of the County upon completion for its use and distribution as may be deemed appropriate by the County.

SECTION 23. Force Majeure.

23.1 Neither party of this Contract shall be liable to the other for any cost or damages if the failure to perform the Contract arises out of causes beyond the control and without the fault or negligence of the parties. Such causes may include, but are not restricted to, acts of nature, fires, quarantine restrictions, strikes and freight embargoes. In all cases, the failure to perform shall be totally beyond the control and without any fault or negligence of the party.

23.2 In the event of delay from the foregoing causes, the party shall take all reasonable measures to mitigate any and all resulting delay or disruption in the party's performance obligation under this Contract. If the delay is excusable under this section, the delay shall not result in any additional charge or cost under the Contract to either party. In the case of any delay that the Consultant believes is excusable under this section, the Consultant shall notify the County in writing of the delay or potential delay and describe the cause of the delay either: (1) within ten (10) calendar days after the cause that created or will create the delay first arose, if the Consultant could reasonably foresee that a delay could occur as a result; or (2) within five (5) calendar days after the date the Consultant first had reason to believe that a delay could result, if the delay is not reasonably foreseeable. **THE FOREGOING SHALL CONSTITUTE THE CONSULTANT'S SOLE REMEDY OR EXCUSE WITH RESPECT TO DELAY.** Providing notice in strict accordance with this section is a condition precedent to such remedy. The County, in its sole discretion, shall determine if the delay is excusable under this section and shall notify the Consultant of its decision in writing. No claim for damages, other than for an extension of time, shall be asserted against the County. The Consultant shall not be entitled to an increase in the Contract price or payment of any kind from the County for direct, indirect, consequential, impact, or other costs, expenses or damages, including but not limited to costs of acceleration or inefficiency arising because of delay, disruption, interference, or hindrance from any cause whatsoever. If performance is suspended or delayed, in whole or in part, due to any of the causes described in this section, after the causes have ceased to exist, the Consultant shall perform at no increased cost, unless the County determines, in its sole discretion, that the delay will significantly impair the value of the Contract to the County, in which case, the County may do any or all of the following: (1) accept allocated performance or deliveries from the

Consultant, provided that the Consultant grants preferential treatment to the County with respect to products or services subjected to allocation; (2) purchase from other sources (without recourse to and by the Consultant for the related costs and expenses) to replace all or part of the products or services that are the subject of the delay, which purchases may be deducted from the Contract quantity; or (3) terminate the Contract in whole or in part.

SECTION 24. Access And Audits of Records.

24.1 The Consultant shall maintain adequate records to justify all charges, expenses, and costs incurred in providing the services and materials for at least three (3) years after completion of work contemplated under this Contract. The County and the County Clerk of Court shall have access to such books, records, and documents as required in this section for the purpose of inspection or audit during normal business hours upon five (5) days' written notice to the Consultant.

SECTION 25. Independent Consultant Status.

25.1 The Consultant shall perform the services under this Contract as an independent contractor and nothing contained herein shall be construed to be inconsistent with this relationship or status. Nothing in this Contract shall be interpreted or construed to constitute the Consultant or any of its agents or employees to be an agent, employee or representative of the County.

25.2 The Consultant and the County agree that during the term of this Contract: (a) the Consultant has the right to perform services for others; (b) the Consultant has the right to perform the services required by this Contract; and (c) the Consultant has the right to hire assistants as subcontractors, or to use employees to provide the services required by this Contract.

SECTION 26. Indemnification.

26.1 The Consultant shall indemnify and hold harmless the County and its agents and employees from all claims, liabilities, damages, losses, expenses and costs, including attorney's fees, arising out of or associated with or caused by the negligence, recklessness, or intentionally wrongful conduct of the Consultant or any persons employed or utilized by the Consultant, in the performance of this Contract. The Consultant shall, at its own expense, defend any and all such actions, suits, or proceedings which may be brought against the County in connection with the Consultant's performance under this Contract.

SECTION 27. Insurance.

27.1 The Consultant shall provide and maintain at all times during the term of this Contract, without cost or expense to the County, such commercial (occurrence form) or comprehensive general liability, workers compensation, professional liability, and other insurance policies as detailed in Exhibit "B". The policy limits required are to be considered minimum amounts.

27.2 The Consultant shall provide to the County a Certificate of Insurance for all policies of insurance and renewals thereof in a form acceptable to the County. Said certificates shall provide that the Nassau County Board of County Commissioners is an additional insured, and that the County shall be notified in writing of any reduction, cancellation or substantial change of policy or policies at least thirty (30) days prior to the effective date of said action with the exception of ten (10) days for non-payment. All insurance policies shall be issued by responsible companies who are acceptable to the County and licensed and authorized under the laws of the State of Florida.

SECTION 28. Dispute Resolution Process.

28.1 In the event of a dispute regarding the interpretation of the terms of this Contract, the County, in its sole discretion, may elect to use the dispute resolution process as set forth in this section.

28.2 In the event the County elects to use the dispute resolution process under this section, the County shall send a written communication to the Consultant pursuant to Section 35 hereinbelow. The written notification shall set forth the County's interpretation of the terms of this Contract.

28.3 The County shall then set a date and time for the parties to meet with the County Manager or designee. This meeting shall be set no more than twenty (20) days from the date that the written communication was sent to the Consultant. The Consultant may submit a written response to the County's written communication no less than five (5) days prior to the meeting with the County Manager or designee.

28.4 If no satisfactory resolution as to the interpretation of the Contract terms reached at the meeting with the County Manager or designee, then the parties may elect to submit the dispute to mediation in accordance with mediation rules as established by the Florida Supreme Court. Mediators shall be chosen by the County and the cost of mediation shall be borne by the Consultant. The Consultant shall not stop work during the pendency of the dispute resolution or mediation process as set forth in this section.

SECTION 29. E-Verify.

29.1 The Consultant shall comply with Section 448.095, Florida Statutes, and use the United States Department of Homeland Security's E-Verify system ("E-Verify") to verify the employment eligibility of all persons hired by the Consultant during the term of this Contract to work in Florida. Additionally, if the Consultant uses subcontractors to perform any portion of

the work (under this Contract), the Consultant shall include a requirement in the subcontractor's contract that the subcontractor use E-Verify to verify the employment eligibility of all persons hired by subcontractor to perform any such portion of the work. Answers to questions regarding E-Verify as well as instructions on enrollment may be found at the E-Verify website: www.uscis.gov/e-verify.

29.2 The Consultant shall maintain records of its participation and compliance with the provisions of the E-Verify program, including participation by its subcontractors as provided above, and to make such records available to the County or other authorized entity consistent with the terms of the Consultant's enrollment in the program. This includes maintaining a copy of proof of the Consultant's and subcontractors' enrollment in the E-Verify program. If the Consultant enters into a contract with a subcontractor, the subcontractor shall provide the Consultant with an affidavit stating that the subcontractor does not employ, contract with, or subcontract with an unauthorized alien. The Consultant shall maintain a copy of such affidavit for the duration of the Contract.

29.3 Compliance with the terms of the E-Verify program provision is made an express condition of this Contract and the County may treat a failure to comply as a material breach of the Contract. If the County terminates the Contract pursuant to Section 448.095(2)(c), Florida Statutes, the Consultant may not be awarded a public contract for at least one (1) year after the date on which the contract was terminated and the Consultant is liable for any additional costs incurred by the County as a result of the termination of this Contract.

SECTION 30. Public Records.

30.1 The County is a public agency subject to Chapter 119, Florida Statutes. **IF THE CONSULTANT HAS QUESTIONS REGARDING THE APPLICATION OF**

CHAPTER 119, FLORIDA STATUTES, TO THE CONSULTANT'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT (904) 530-6090, RECORDS@NASSAUCOUNTYFL.COM, 96135 NASSAU PLACE, SUITE 6, YULEE, FLORIDA 32097. Under this Contract, to the extent that the Consultant is

providing services to the County, and pursuant to Section 119.0701, Florida Statutes, the Consultant shall:

- a. Keep and maintain public records required by the County to perform the service.
- b. Upon request from the County's custodian of public records, provide the County with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in this chapter or as otherwise provided by law.
- c. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the Contract term and following completion of the Contract if the Consultant does not transfer the records to the County.
- d. Upon completion of the Contract, transfer, at no cost, to the County all public records in possession of the Consultant or keep and maintain public records required by the County to perform the service. If the Consultant transfers all public records to the County upon completion of the Contract, the Consultant shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the Consultant keeps and maintains public records upon completion of

the Contract, the Consultant shall meet all applicable requirements for retaining public records. All records stored electronically shall be provided to the County, upon request from the County's custodian of public records, in a format that is compatible with the information technology systems of the County.

30.2 A request to inspect or copy public records relating to the County's contract for materials shall be made directly to the County. If the County does not possess the requested records, the County shall immediately notify the Consultant of the request, and the Consultant shall provide the records to the public agency or allow the records to be inspected or copied within a reasonable time.

30.3 If the Consultant does not comply with the County's request for records, the County shall enforce the Contract provisions in accordance with the Contract.

30.4 If the Consultant fails to provide the public records to the County within a reasonable time, the Consultant may be subject to penalties under Section 119.10, Florida Statutes.

30.5 If a civil action is filed against the Consultant to compel production of public records relating to the Contract, the Court shall assess and award against the Consultant the reasonable costs of enforcement, including reasonable attorney fees if:

- a. The Court determines that the Consultant unlawfully refused to comply with the public records request within a reasonable time; and
- b. At least eight (8) business days before filing the action, the plaintiff provided written notice of the public records request, including a statement that the Consultant has not complied with the request, to the County and to the Consultant.

30.6 A notice complies with Section 30.5 b. hereinabove, if it is sent to the County's

custodian of public records and to the Consultant at the Consultant's address listed on its Contract with the County or to the Consultant's registered agent. Such notices shall be sent pursuant to Section 35 hereinbelow.

30.7 If the Consultant complies with a public records request within eight (8) business days after the notice is sent, the Consultant is not liable for the reasonable costs of enforcement.

SECTION 31. Disclosure Of Litigation, Investigations, Arbitration or Administrative Decisions.

31.1 During the term of this Contract, or any extension thereto, the Consultant shall have the continued duty to disclose to the County Attorney, in writing, upon occurrence, all civil or criminal litigation, arbitration, mediation, or administrative proceeding involving the Consultant. If the existence of the proceeding causes the County concerns that the Consultant's ability or willingness to perform this contract is jeopardized, the Consultant may be required to provide the County with reasonable written assurance to demonstrate the Consultant can perform the terms and conditions of the Contract.

SECTION 32. Public Entity Crimes.

32.1 In accordance with Section 287.133, Florida Statutes, the Consultant certifies that it, its affiliates, suppliers, subcontractors and consultants who will perform hereunder, have not been placed on the convicted vendor list maintained by the State of Florida Department of Management Services within the thirty-six (36) months immediately preceding the date of this Contract.

SECTION 33. Anti-Discrimination.

33.1 The Consultant agrees that it will not discriminate in employment, employee development, or employee advancement because of religious or political opinions or affiliations,

race, color, national origin, sex, age, physical handicap, or other factors, except where such factor is a bonified occupational qualification or is required by State and/or Federal Law.

SECTION 34. Advertising.

34.1 The Consultant shall not publicly disseminate any information concerning this Contract without prior written approval from the County, including but not limited to, mentioning the Contract in a press release or other promotional material, identifying the County as a reference, or otherwise linking the Consultant's name and either description of this Contract or the name of the County in any material published, either in print or electronically, to any entity that is not a party this Contract, except potential or actual authorized distributors, dealers, resellers, or service representative.

SECTION 35. Notices.

35.1 All notices, demands, requests for approvals or other communications given by the parties to another in connection with this Contract shall be in writing, and shall be sent by registered or certified mail, postage prepaid, return receipt requested, or overnight delivery service (such as federal express), or courier service or by hand delivery to the office of each party indicated below:

County: Nassau County
Attn:
96135 Nassau Place
Yulee, Florida 32097

Consultant: [Consultant Address]
Attn: [Consultant Contact Person]

[Consultant Address]

SECTION 36. Attorney's Fees.

36.1 Notwithstanding the provisions of Section 30 hereinabove, in the event of any legal action to enforce the terms of this Contract each party shall bear its own attorney's fees and costs.

SECTION 37. Authority to Bind.

37.1 The Consultant represents and warrants that the Consultant's undersigned representative if executing this Contract of behalf of a partnership, corporation or agency has the authority to bind the Company to the terms of this Contract.

SECTION 38. Conflicting Terms, Representations and No Waiver of Covenants or Conditions.

38.1 In the event of any conflict between the terms of this Contract and the terms of any exhibits, the terms of this Contract shall prevail.

38.2 All representations, indemnifications, warranties and guaranties made by the Consultant in this Contract, as well as all continuing obligations indicated in this Contract, shall survive final payment and termination or completion of this Contract.

38.3 The failure of either party to insist on strict performance of any covenant or condition herein, or to exercise any option herein contained, shall not be construed as a waiver of such covenant, condition, or option in any other instance.

38.4 The Consultant warrants that any goods provided by the Consultant under this Contract shall be merchantable. All goods provided shall be of good quality within the description given by the County, shall be fit for their ordinary purpose, shall be adequately contained and packaged with the description given by the County, shall conform to the agreed

upon specifications, and shall conform to the affirmations of facts made by the Consultant or on the container or label.

SECTION 39. Construction of Contract.

39.1 The parties hereby acknowledge that they have fully reviewed this Contract and any exhibits and have had the opportunity to consult with legal counsel of their choice, and that this Contract shall not be construed against any party as if they were the drafter of this Contract.

SECTION 40. Headings.

40.1 The section headings and captions of this Contract are for convenience and reference of the parties and in no way define, limit or describe the scope or intent of this Contract or any part thereof.

SECTION 41. Entire Agreement and Execution.

41.1 This Contract, together with any exhibits, constitutes the entire Contract between the County and the Consultant and supersedes all prior written or oral understandings.

41.2 This Contract may be executed in any number of counterparts; each executed counterpart hereof shall be deemed an original; and all such counterparts, when taken together, shall be deemed to constitute one and the same instrument.

SECTION 42. Change of Laws.

42.1 If there is a change in any state or federal law, regulation or rule or interpretation thereof, which affects this Contract or the activities of either party under this Contract, and either party reasonably believes in good faith that the change will have a substantial adverse effect on that party's rights or obligations under this Contract, then that party may, upon written notice, require the other party to enter into good faith negotiations to renegotiate the terms of this Contract. If the parties are unable to reach an agreement concerning the modification of this

Contract within fifteen (15) days after the date of the notice seeking renegotiation, then either party may terminate this Contract by written notice to the other party. In such event, Consultant shall be paid its compensation for services performed prior to the termination date.

[The remainder of this page left intentionally blank.]

DRAFT

IN WITNESS WHEREOF, the parties have executed this Contract which shall be deemed an original on the day and year last written below

**BOARD OF COUNTY COMMISSIONERS
NASSAU COUNTY, FLORIDA**

By: _____
Its: _____
Date: _____

Attest as to authenticity of the
Chair's signature:

JOHN A. CRAWFORD
Its: Ex-Officio Clerk

Approved as to form and legality by the
Nassau County Attorney

DENISE C. MAY

COMPANY'S NAME

By: _____
Its: _____
Date: _____



NASSAU COUNTY
BOARD OF COUNTY COMMISSIONERS
Procurement Department
96135 Nassau Place, Suite 2
Yulee, Florida 32097
Ph: 904-530-6040

TO: All Prospective Proposers

FROM: Thomas O'Brien, Procurement Specialist

SUBJECT: Addendum #1
Request for Qualifications Number NC23-056
Professional Engineering Services for Solid Waste Landfills and Other Related
Ancillary Facilities

DATE: October 12, 2023

This addendum is hereby incorporated into the bid documents of the project referenced above. The following items are clarifications, corrections, additions, deletions and/or revisions to, and shall take precedence over, the original documents.

Question and Answer

Reference: Invitation # NC23-056-RFQ. Do you need P.E. electrical engineering for this job?

Answer: A P.E. license is not required.

The solicitation due date and opening time remains: October 18, 2023 at 10:00 AM EST.

VENDOR HEREBY ACKNOWLEDGES THIS ADDENDUM ELECTRONICALLY THROUGH PLANETBIDS BY ITS BID SUBMISSION.



TAB 1 – Cover Letter

October 18, 2023

Mr. Thomas O'Brien, Procurement Specialist
Nassau County Procurement Department
96135 Nassau Place, Suite 2
Yulee, Florida 32097

Re: Request for Qualifications
Professional Engineering Services - Solid Waste Landfills and Other Related Ancillary Facilities
Nassau County Bid No. NC23-056-RFQ
Proposer: S2L, Incorporated

Dear Mr. O'Brien:

S2L, Incorporated (S2Li) is most pleased to submit this Statement of Qualifications for consideration by Nassau County ("County") for Professional Engineering Services for Solid Waste Landfills and Other Related Ancillary Facilities. The County has unique requirements with respect to solid waste management, and the Project Team assembled by S2Li to serve Nassau County has demonstrated its ability to overcome any solid waste-related challenges to be faced by the County.

Understanding of the Scope of Services

S2Li served as a subconsultant to the County beginning in 1999, and the firm's performance as subconsultant led to its selection as prime consultant in 2014. In service to the County, S2Li has developed a clear understanding of the County's needs, working diligently with County staff in addressing these needs. At the forefront of these needs is controlling costs. With three legacy landfill sites and no tipping fees to defer the costs of post-closure care (PCC) operations, the County has consistently been faced with doing more for less, protecting the environment in compliance with permit requirements while constantly reducing the costs of site maintenance and environmental monitoring. In pursuit of this goal, S2Li and the County were successful at eliminating regulatory PCC requirements and associated costs for the Bryceville Landfill site, and more importantly, in eliminating the regulatory requirement to pump and treat large quantities of groundwater as leachate at the West Nassau Landfill site, in addition to the removal of many unfavorable permit conditions within the West Nassau Landfill's closure permit. For the Lofton Creek Landfill site, the S2Li Project Team worked with the County to successfully amend the closure operations permit, significantly reducing water quality monitoring requirements and laboratory testing costs.

S2Li and its team of subconsultants have had the privilege of assisting the County in addressing all of the 13 items listed within the Scope of Services. To-date, S2Li has been successful in working with the County in developing the monitoring plan implementation schedule (MPIS) included within the permits for each site. The routine gathering of water quality data will present the S2Li Project Team, particularly subconsultant The Colinas Group (TCG), with the opportunity to continue on the pathway of further reductions in monitoring frequency and/or a reduced parameter's list for the two sites still subject to water quality monitoring requirements. S2Li/TCG provide a successful track record in achieving such reductions for disposal sites throughout Florida, including those within Nassau County.

Mr. Thomas O'Brien, Procurement Specialist
Nassau County Procurement Department
October 18, 2023
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Other opportunities may present themselves in the coming 3 to 5-year period. The County is constantly being approached by developers interested in the possibility of repurposing the surface of the FDEP-regulated Lofton Creek Landfill site. The County has been approached with alternatives such as a solar farm, an apartment complex, an RV park, and the potential expansion of the animal control facility. The County has consulted with S2Li to provide them with advantages and disadvantages to these types of developments. In an ongoing effort, S2Li and subconsultant, Grove Scientific & Engineering, Inc., are in year two of a regulatory program to cease federal Title V-related monitoring and reporting requirements of the Landfill Gas Collection and Control System at the West Nassau site. Upgrades are under consideration for the citizen's convenience center at the West Nassau site.

Questions?

S2Li President and proposed Project Director Sam Levin, P.E., will be most pleased to respond to any questions the County may have relative to this response. His contact information is as follows:

Sam Levin, President, S2L, Incorporated
531 Versailles Drive, Suite 202
Maitland, Florida, 32751
Phone: 407-475-9163
Fax: 4076-475-9169
Email: Slevin@S2Li.com

Qualifications of the S2Li Project Team

S2Li is a solid waste-only consultant. This specialization enhances the firm's in-depth understanding of the solid waste issues faced by Florida communities. The firm's senior staff has worked as a team since the mid-1980s, providing more than a century of combined solid waste experience, much of which has been earned in Florida, and much of the Florida experience earned within the Northeast District of the Florida Department of Environmental Protection. As will be evident from the content of this submittal, the firm has developed close relationships with like-minded specialty subconsultants focused on ancillary disciplines.

In summary, the S2Li Project Team offers Nassau County an unmatched level of County-specific, solid waste-specific expertise and experience.

Actions speak louder than words, and the actions of S2Li's clients are thunderclap loud. S2Li continues to serve almost every Florida county it has ever had the opportunity to serve through reselection after reselection.

S2Li appreciates this opportunity to be of continuing service to Nassau County.

Very truly yours,

S2L, Incorporated



Samuel B. Levin, P.E.
President

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TAB 3 – TEAM ORGANIZATION, EXPERIENCE AND QUALIFICATIONS

Tab 3 – Team Organization, Experience and Qualifications

a. Brief Description of S2Li's Organization, Experience and Qualifications

Beginning in the early 1980s, a large, multidisciplinary Florida-based consulting firm found success in providing solid waste engineering services through its Orlando office. Fifteen years and hundreds of projects later, the firm felt compelled to focus its practice on the transportation engineering sector. The three most seasoned solid waste engineers, Samuel Levin, P.E., Omar Smith, P.E., and Robert Mackey, P.E. had a differing vision, forming S2L, Incorporated (S2Li) in 1997 as a solid waste-only consulting firm, limiting its practice to a single discipline – solid waste.

Over the next 26 years and the successful completion of over 1,000 projects, the firm grew organically, primarily through word of mouth. It is common practice for an engineering firm to spend 80% of its marketing budget to replace the 20% of its clientele that seek the assistance of other firms after the term of their agreement comes to an end. As will become readily apparent when reviewing this document, S2Li has no marketing budget, and has not had the need to replace clientele, as the firm still serves almost every client it has ever been granted the opportunity to serve. The firm has served most Counties within the Central District of the Florida Department of Environmental Protection (FDEP) for extended periods of time as listed below:

- Brevard County, 1999 to the present
- Lake County, 2012 to the present
- Marion County, 2005 to the present
- Orange County, 2004 to the present
- Osceola County, 2006 to 2020
- Seminole County, 1997 to the present
- Volusia County, 2006 to the present

Note that public agencies within Florida are required to periodically re-advertise for engineering services, which means that it has been necessary for S2Li to earn reselection (and in many cases, multiple reselections) with each of its longstanding public clients. In Seminole County, S2Li has been re-selected as its landfill consultant five times, under five differing solid waste directors. Services for Brevard County have included over 100 Task Assignments and two differing directors. The firm has served Orange County for two differing facets of the County's solid waste program, now under its second director. Marion County has been served by S2Li under what is now its third director, and Volusia County with two reselections.

In addition to these Central Florida Counties, S2Li has also served Nassau County in addressing its solid waste needs since 1999, and has served most, but not all of the larger private waste management firms, and a growing number of smaller private firms present within Florida.

While S2Li is focused on a single discipline, the firm routinely utilizes subconsulting firms that are similarly focused, have demonstrated a client's-needs-first approach, and are committed to utilizing the S2Li quality control and quality assurance procedures. All of the subconsulting firms comprising the S2Li Project Team proposed to serve Nassau County, with the exception of GAI Consultants (GAI), are longtime S2Li subconsultants. The opportunity to take advantage of the expertise Nassau County-specific knowledge available within GAI's Jacksonville office was too attractive to pass up. Following are brief profiles of the subconsulting firms proposed to assist S2Li in service to Nassau County.

AVCON, Inc. - Project Assignment: Structural Engineering Services

Founded in 1988, AVCON is a full-service engineering and planning firm, serving all segments of the transportation and development industries. The firm prides itself on solution-driven services to its clients and is focused on providing the highest quality of work. Expert professionals now provide a full array of professional services including civil, mechanical, electrical, plumbing, fire protection, and structural engineering and planning services from various offices. Although its origin is firmly rooted in aviation, the firm has developed complete capabilities to serve a full array of clients creating planning and design solutions for highway, bridge, utility improvement, structural and facilities engineering, threshold inspection, and architectural support projects throughout the southeast United States, nationally, and internationally.

AVCON provides its clients with practical, cost-effective solutions to complex planning and engineering problems. It is AVCON's philosophy that today's professional engineering and planning firms must have experience in planning, environmental studies, engineering design, cost estimating, construction management, operations, and finance – the total program. AVCON has this experience and can commit to providing Nassau County with the total program.

The Colinas Group - Project Assignment: Hydrogeological and Water Quality Testing Services

The Colinas Group, Inc. (TCG) was incorporated in the State of Florida in 1998 by a small group of Florida hydrogeologists and water resources engineers to provide highly technical and specialized professional services in the fields of hydrogeology and water resources. The firm operates from three Florida offices located in Altamonte Springs, Lakeland, and Sarasota. Each office is managed by an owner/principal of the firm, either a Florida licensed professional geologist or professional engineer, with at least 30 years of continuous, hands-on project experience in the central Florida area.

TCG's professional staff consists of five Florida-licensed professional geologists and two licensed professional engineers. Each of TCG's professional geologists have extensive project experience working with the geologic and hydrologic conditions unique to Florida in support of permitting and monitoring of solid waste facilities. Educated in the classical fields of geology and hydrology and trained through years of practical experience in the real world, these individuals are intimately familiar with all aspects of hydrogeology that affect the siting, permitting, operation, monitoring, and regulatory compliance of these facilities.

TCG routinely provides hydrogeologic services in support of solid waste projects related to the siting, permitting, operation, and routine and special-purpose water quality monitoring of solid waste management facilities, ranging from small, privately-owned C&D landfills to large municipal Class I solid waste disposal and recycling facilities. TCG is currently providing the same hydrogeological and testing services requested by Nassau County for municipal landfills located in Lake, Nassau, Orange, and Seminole counties.

The firm's professional staff and facilities are fully capable of providing the complete range of hydrogeologic services, from state-of-the-art field sampling to interpretation of the most complex hydrogeologic conditions and geochemical monitoring results, likely required in support of the County's solid waste program.

GAI Consultants, Inc. - Project Assignment: Civil Engineering Services

GAI Consultants, Inc. (GAI) is an engineering, environmental, and planning consulting firm. Through growth, acquisition, and much success, GAI has 700+ employees, serving clients from 25 office locations throughout Florida (including the Jacksonville area) and the United States. The firm's offices are organized to mobilize staff and services seamlessly. GAI has been in business for 65 years and has been practicing in Florida for 40 years.

GAI specializes in providing professional engineering services, drawing upon in-house experts and technicians, and utilizing specialty subconsultants as necessary to meet the project's individual work assignment requirements. From feasibility studies to concept design to final design/permitting - and through construction implementation - GAI's ability to meet the needs of its clients is second to none in Florida.

Land development is an integration of site planning, civil engineering, and stormwater management - and GAI has engineers, planners, and environmental professionals dedicated to developing sites. The firm's project managers have experience in managing small to complex residential, commercial, industrial, institutional, and brownfield development projects.

GAI evaluates existing site conditions, including topography, natural resources, wetlands and streams, drainage patterns, and existing or nearby utility and roadway infrastructure. GAI understands the importance of early planning so the site layout is in continuity with existing conditions and meets the intended use of the client. GAI's land development professionals are skilled in effectively utilizing existing conditions as much as possible to be cost-effective, yet remaining compliant with current regulations, and ultimately achieving the client's goals for the project.

Grove Scientific & Engineering, Inc. - Project Assignment: Title V Services

Grove Scientific & Engineering, Inc. (Grove) is an environmental science and engineering consulting firm specializing in environmental permitting, monitoring (air, water, waste, and soil), ambient air monitoring and modeling, industrial hygiene compliance, indoor air quality, OSHA and community sound level monitoring, and hazardous waste consulting. Groves's staff of engineers and scientists also performs specialized industrial pollution control system engineering services.

Established in 1987 and incorporated in Florida, Grove is a minority-owned business certified in the State of Florida. Grove staff includes chemical, mechanical, and environmental engineers registered in several states, industrial hygienists, biologists, and environmental scientists. Below is a partial list of Grove's experience:

Municipal Solid Waste and Landfills – monitoring and air pollution permitting

Grove is very experienced in multi-media monitoring of solid waste and bio-hazardous waste management facilities. Grove has permitted numerous incinerators, air pollution control systems, landfill flares, and odor control systems. Grove is well respected for their community conflict resolution studies on odor, toxic air contaminants, and sound impacts.

Compliance Monitoring – multi-media

Grove is fully equipped for monitoring soil, sediment, surface water, groundwater, and biological systems. Staff is FDEP-trained and certified. Grove conducts stack tests for air pollution facilities and industrial hygiene monitoring for OSHA health and safety compliance. Grove also performs building-related mold assessment and indoor air quality studies.

Air Pollution Engineering, Permitting and Consulting

Since 1987, Grove has permitted over 450 individual stationary air pollution sources and obtained well over 1000 air permits in 48 states and 9 countries.

Kessler Consulting - Project Assignment: Recycling Services

Throughout its 25-year history, Kessler Consulting, Inc. (KCI), has built an impressive record of accomplishment by providing solid waste consulting services to over 100 government and numerous business and private clients. Expertise in the areas of collection and processing procurements, rate studies, program evaluation and implementation, and system optimizations enhance the S2Li Project Team. The firm's professional reputation is best demonstrated by the long-term relationships enjoyed with many KCI clients.

Mitch Kessler joined the firm in 1991, his background in integrated system design and expertise in contracting for solid waste services helped the firm respond to the growing demand for expanded solid waste management options and innovative collection, processing, and disposal solutions.

Over the years, as the needs of the nation's solid waste managers have changed, the focus of KCI's work has also shifted. KCI continues to provide basic solid waste services; however, in the current climate of fiscal accountability and public involvement, KCI's work typically includes evaluating program efficiency and cost-effectiveness and coordination of and participation in public workshops.

More recently, KCI has been on the leading edge of focusing on sustainability and environmental stewardship, especially in the business sector. Many projects now include "green" elements, such as assisting in green building renovations, achieving Leadership in Energy and Environmental Design (LEED®) certification, establishing a green business certification program, conducting workshops for green property managers, and developing environmentally preferable purchasing policies and guidelines.

KCI has been on the leading edge of focusing on sustainability in both the government and business sectors. With LEED® accredited professionals on staff, project work now includes assisting local governments in obtaining Green Government certifications and project administration for Green Buildings. KCI has also developed green business certification programs, conducted workshops for green property managers, and created environmentally preferable purchasing policies and guidelines.

PRW Group, LLC - Project Assignment: Leachate Management and Processing Engineering Services

Established in 2007, PRW Group, LLC (PRW), is a central Florida consulting firm specializing in advanced waste treatment, leachate management, and utility services. PRW provides solutions that enable clients to meet customer, business, and regulatory demands. PRW's experience allows PRW to provide the following services:

- Leachate management/control/treatment systems
- Advanced treatment design
- Utility Services

While providing these services, PRW's goals are to:

- Develop efficient, well-planned facility designs and expansions resulting in the highest value from capital expenditures.
- Proactively work with the regulators to protect public health, welfare, and the environment, while addressing the fiscal, environmental, and specific issues of their clients.
- Combine best industry practices, leading-edge technology, and sound engineering to optimize continuing investments.

These services and philosophies provide realistic solutions, save money, and successfully address the critical issues and challenges facing the environmental community. Representative PRW clients include:

- Volusia County
- City of Melbourne
- Brevard County
- Dade County
- Indian River County
- City of Orlando
- Tampa Electric Company
- Orange County
- Private Utilities
- Private Waste Management Firms
- Consulting Firms
- Design-Build Contractors

PRW's principal, Rick Wilson P.E., has over 40 years of experience serving clients on water, wastewater, leachate management, and solid waste projects. Over the years, he has worked on various leachate treatment and handling projects for both Class I and Class III landfills, as well as the planning and design of wastewater treatment facilities throughout the State of Florida. He has an excellent relationship with local permitting agencies.

Prior to forming PRW Group, Mr. Wilson worked for major consulting firms in the central Florida area, and most recently was the Manager of Engineering for Orange County Utilities, responsible for a \$100 million Capital Improvement Program for water, wastewater, and solid waste projects.

Smith Surveying Group - Project Assignment: Land Surveying Services

Land surveying is the science of plotting points and creating maps of the features of a particular piece of land. The points are used to create maps and establish boundaries for ownership of land. Land surveying requires a detailed knowledge of geometry, physics and the law. It is an essential step in the planning and execution of any construction project. It can be as small as a fence in a residential home's yard to as large as an international airport.

Smith Surveying Group emphasizes civil engineering design services, construction staking and monitoring services, as-built surveys, right of way surveys, topographic surveys and high definition 3D scanning.

Smith Surveying Group also offers:

- GPS observation services
- Conventional land survey techniques
- Laser and LIDAR scanning services
- ALTA boundary surveying services
- Subdivision record platting services
- Construction monitoring and staking
- Large acreage boundary surveys
- Hydrographic and Mean High water line surveying services

Smith Surveying Group has a vast knowledge and competence with a variety of tools such as robotic total stations, GPS, 3D scanners and various computer programs.

Sullivan Environmental - Project Assignment: Landfill Gas Field Services

Sullivan Environmental, Inc. (SEI) is a leading provider of specialty construction and environmental services to landfill, solid waste, and environmental clients. SEI's client base includes both private and public landfill owner/operators, consulting/engineering firms, general and specialty contractors, alternate energy and landfill gas developers, and other environmental and industrial firms.

SEI strives to provide the industry with competitive services with unparalleled Integrity, Professionalism, and Performance. SEI's goal is to consistently provide clients with a level of quality and consistency of service that exceeds their expectations.

SEI's highly qualified staff is experienced in LFG system operation and maintenance; environmental monitoring and reporting; and installation/repair of LFG and leachate extraction systems.

S2Li's Work with the Project Team Members

Table 1-1 below provides a listing of where each of the Project Team's proposed subconsultants has worked with S2Li in service to the Project Team's municipal clients.

Table 1-1

Firm →	AVCON	TCG	GROVE	GAI	Kessler	PRW	Sullivan
Nassau		X	X		X	X	X
Brevard		X				X	X
Lake		X	X		X		
Marion	X				X		
Orange	X	X	X			X	
Osceola	X	X			X	X	X
Seminole	X	X	X		X	X	X
Volusia	X	X				X	X

Business Particulars

S2Li is an S Corporation with four owners:

Sam Levin, P.E., President
 Omar Smith, P.E., Vice President and Regional Manager
 Bob Mackey, P.E., Vice President and Principal Engineer
 Greg Brunson, P.E., Shareholder and Senior Engineer

The firm structure reflects its size. While Mr. Levin has the final say on all business matters, no decisions of significance are made in the absence of a consensus among the owners, and a consensus has never failed to be achieved.

The firm's philosophy may be summed up as follows: *What is in the best interest of the client is always in the best interest of S2Li.* For example, if a client wishes to pursue a direction that would provide S2Li with an opportunity for service but is not in the opinion of S2Li the best approach for the client, S2Li will do its very best to dissuade the client from its preferred path. S2Li's focus is on results.

As a corollary to that approach, S2Li refuses to pursue any pathway that is not in strict compliance with the rules or can lead to a violation of professional ethics. Among the few ex-clients of S2Li is a large private waste management firm whose new local manager ordered S2Li to provide services in a manner that was contrary to Florida rules. Note that Bob Mackey is a former chair of the Florida Engineering Society's Ethics Committee.

b. S2Li Years of Experience and Applicable Project Experience

S2Li was formed in 1997 and was immediately selected by Seminole County to provide landfill-related services. During its 26 years of serving both municipal as well as private solid waste clients, the firm has completed more than 1,000 solid waste projects.

As far as applicable experience, S2Li enjoys longstanding relationships with multiple Florida Counties requiring services closely related (or in some cases identical) to those described in Exhibit A of this RFQ. Following are summaries of services provided on behalf of S2Li's municipal clients.

Title: **Services for Nassau County, Florida**
Owner's Contact: Douglas Podiak, Public Works Director
Nassau County Board of County Commissioners
Address: 45195 Musselwhite Road
Callahan, Florida 32011
Phone: (904) 530-6120
Email: dpodiak@nassaucountyfl.com
Period of Service: 1999 to the present, including reselections in 2013 and 2019



Nassau County maintains three closed landfill sites, with S2Li providing monitoring and maintenance assistance and regulatory compliance services for two of the facilities: West Nassau and Lofton Creek Landfill. S2Li permitted and designed a partial closure of the largest of the three, the West Nassau Landfill, which includes two disposal facilities within a slurry wall. One of the two was fitted with a geomembrane bottom liner, with the other relying on the slurry wall for leachate containment. S2Li was successful in eliminating inward gradient requirements for the portion of the slurry wall serving the lined cell, significantly reducing the quantity of leachate requiring management. The West Nassau Landfill is a Title V site, and S2Li is in the second year of a process of demonstrating that landfill gas emissions have diminished sufficiently to remove the site from future Title V compliance requirements. S2Li is responsible for tuning the landfill gas collection system, and, with the assistance of subconsultant Sullivan Environmental, provides repair and maintenance services for the landfill gas collection system and flare. S2Li and subconsultant Kessler Consulting prepared a solid waste management plan for the County, which is currently in draft form.

Note that Kessler Consulting, The PRW Group, The Colinas Group, and Sullivan Environmental are proposed to continue serving Nassau County as subconsultants to S2Li.

Title: **Services for Orange County Utilities Department, Solid Waste Division**
Owner's Contact: Brad Higerd, P.E.
Chief Engineer
Address: 5901 Young Pine Road
Orlando, Florida 32829
407-836-6605
Email: Brad.higerd@ocfl.net
Period of Service: 2003 to the present



S2Li has been selected by Orange County six times in the past 20 years. Four of the six were reselections, as the contract terms were to expire. The selections were for assignments in two general categories. The first was for smaller projects, with design and/or construction fees limited in accordance with State of Florida Statutes. The second, and much larger of the two, was for providing Class III Landfill services.

Services provided under the small project category have been quite varied and largely successful. The first assignment was to retrofit the leachate collection system at the County's Class I landfill to add cleanouts where none had been included within the original design (by others). A more memorable assignment was completed within two weeks in response to the County's time constraints. The County had advertised for a partial closure of its Class I landfill, receiving only one bid, at about double the engineer's estimate. S2Li reviewed the bid package and discussed constraints with liner suppliers as well as with general contractors. S2Li prepared a detailed technical memorandum, summarizing its findings and recommendations. Armed with this information, the County rebid the project, receiving multiple bids, and realizing approximately \$9 million in savings in comparison to the original bid price. Other, less dramatic assignments performed under this agreement have included multiple repairs to the County's two transfer facilities, repair of the floor within the County's maintenance facility, and rehabilitation of the parking area surrounding the County's Administrative Complex.

Class III services have been extensive. Initially, S2Li assisted the County in permitting the initial Class III cell, developed over an unlined, Class I landfill that had been closed for decades. This work was performed on a fast-track basis, as the County was running out of Class III airspace. S2Li subsequently permitted the expansion of the Class III landfill over much of the previously closed Class I area, performed partial closures of areas that had achieved final grades, and expanded the landfill gas collection and flaring system as necessary to accommodate the expanded Class III area. After receipt of County approval, S2Li submitted a permit modification request to add a poor-quality adjacent wetland known as Max Hall Park to the Class III disposal footprint. FDEP's approval added 25% to the site's disposal capacity. S2Li and subconsultant AVCON are currently preparing a traffic remediation design, including a reconfigured access road and new scale facility.

Note that The Colinas Group, AVCON, Grove Scientific and The PRW Group all serve as subconsultants to S2Li in service to Orange County, and are proposed to continue serving as subconsultants to Nassau County.

Title: **Services for Seminole County
Environmental Services Department**

Owner's Contact: Oliver Bond
Solid Waste Manager

Address: 1950 State Road 419
Longwood, Florida 32750
407-665-2253

Email: Obond@seminolecountyfl.gov

Period of Service: 1997 to the present



S2Li's senior staff have served Seminole County continuously since the mid-1980s, and Seminole County was among S2Li's initial clients when the firm was formed in 1997. During the 1990s, S2Li was responsible for all of the County's solid waste consulting services, covering the air, water quality, and general solid waste engineering. Later, the County adopted the same practice as Volusia County, selecting multiple consultants, while retaining S2Li as its primary solid waste consultant. More recently, S2Li has been selected as the County's landfill consultant and transfer station consultant, with The Colinas Group (TCG) serving as the County's solid waste hydrogeological consultant.

It should come as no surprise that S2Li has successfully completed a significant and growing list of solid waste assignments in the 26 years it has served the County. Among the assignments has been design of multiple expansions to the landfill gas extraction system, assistance in the operation and repair of that system, the renewal of the Osceola Road Landfill's and Central Transfer Station's operations permits for a duration of 20-years, and closure/post-closure cost-estimating in accordance with both FDEP and GASB 18 requirements, enabling the County to moderate fluctuations in the magnitude of its required financial security instrument. S2Li has assessed the impact of special wastes proposed for disposal within the landfill, providing technical memoranda for the County's use. S2Li also provided assistance in removing two legacy Class I landfills from post-closure monitoring and maintenance requirements, through compilation and completion of site stabilization reports. The entrance road to the Osceola Road Landfill was repaved, and replacement of the scalehouse on that entrance road is in progress. S2Li researched the potential use of alternative fuels for the County's mobile fleet, and evaluated the carbon footprint impact of disposing yard waste into the Class I hill versus processing and hauling the yard waste for purposes of energy recovery in Polk County. The firm assisted in the procurement of a landfill gas vendor, in evaluating leachate management options, and aided in preparing a capital improvements plan for the landfill site. At the Central Transfer Station, S2Li replaced the lighting and performed electrical upgrades for one project, and performing structural upgrades as a second project at this site. S2Li is currently evaluating the installation of a second site exit for the Central Transfer station, including a long-term site reconfiguration plan. In conjunction with subconsultant Kessler Consulting, S2Li performed a recyclables composition study, assisted the County in improving its reported recycling rate, and assisted the County in procurement of a recycling materials vendor.

S2Li is currently assessing relocation, repair or replacement of the Household Hazardous Waste locker located at the County's Central Transfer Station, and is in the pre-construction phase of expanding the citizens convenience center at the Osceola Road Landfill. Also in the pre-construction phase is the remediation of the floor at Central Transfer Station.

Note that AVCON, The Colinas Group, Grove Scientific, and Kessler Consulting, all of whom serve and are proposed to continue serving as subconsultants to S2Li in Nassau County, also serve as S2Li subconsultants in service to Seminole County.

Title: **Services for Brevard County
Solid Waste Management Department**

Owner's Contact: Tom Mulligan, P.E., Director

Address: 2725 Judge Fran Jamieson Way
Building A, 1st Floor
Viera, Florida 32940-6602
321-633-2042

Email: Thomas.mulligan@brevardfl.gov

Period of Service: 1999 to the present



S2Li's first assignment on behalf of Brevard County took place in 1999. The County was preparing to issue bid documents for the construction of its Melbourne Transfer Station and asked S2Li to perform a design review. S2Li immediately found a "tweak" that, if implemented, could either reduce construction costs by \$1,000,000 or significantly increase floor space, which is the option selected by the County. S2Li also noted means by which the structure's foundation could be reduced in size, as snow load issues were not valid within Central Florida.

S2Li next assisted the County in addressing a privatization initiative. With Class III airspace dwindling at the County's Sarno Road facility, S2Li was tasked with preparing a request for qualification/request for proposal documents, in which the County invited private industry to address waste disposal for those wastes generated within the South County Solid Waste Service Area. The regional landfill in Holopaw submitted a responsive offer, but S2Li determined that acceptance of that offer would be more expensive (by about \$90 million) than having the County develop its own new disposal facility within property purchased by the County expressly for that purpose.

This County site comprises about 3,000 acres along US-192, adjacent to the Osceola County/Brevard County line. While Brevard County maintains a stable of solid waste consultants, S2Li was selected to bring this site to fruition. To date, S2Li has procured both the FDEP solid waste and Environmental Resource Permits (ERP), having negotiated a settlement with the surrounding landowner, and has completed the design and is about to enter the construction phase of site development.

The Central Disposal Facility in Cocoa currently accepts all of the County's Class I and Class III waste. S2Li was asked to prepare a conceptual design for the expansion of this slurry wall landfill, with the County electing to utilize a different firm to prepare the permit and design for this expansion. The County selected S2Li to perform a design review of this expansion, which has since been successfully constructed. S2Li also assisted the County in procuring a landfill gas vendor for the Cocoa site and provided permitting and design services for Cell 2 of the lateral southern expansion area.

S2Li also performed a convenience center needs study, examining the ability of additional residential drop-off centers to reduce the level of indiscriminate dumping county-wide. It was concluded that a transfer facility within the southernmost reaches of the County would do a lot more to address the observed indiscriminate dumping of C&D materials, although the quantity of material being generated was insufficient to justify a new transfer facility at this time.

Note that AVCON, Kessler Consulting, and PRW Group, all of whom serve and are proposed to continue serving as subconsultants to S2Li in Nassau County, also serve as S2Li subconsultants in service to Brevard County.

Title: **Services for Marion County
Solid Waste Department**

Owner's Contact: Mark Johnson
Solid Waste Operations Manager

Address: 5601 S.E. 66th Street
Ocala, Florida 34480

Phone: 352-671-8465

Email: mark.johnson@marionfl.org

Period of Service: 2005 to the present



S2Li was initially selected to serve as one of Marion County's family of solid waste consultants in 2005. In an unusual move, staff was directed by the Chair of the County Commission to have S2Li examine the efficiency of its solid waste operations. As S2Li had at that time not even met this commissioner, this must have been the result of S2Li's well-deserved reputation for excellence. S2Li found that the County was operating its own landfill, while simultaneously hauling out most of its waste to a private landfill in south Georgia. Staff had elected to operate the landfill in an attempt to *reduce* costs, as it could operate for about \$15 per ton, while the haul to Georgia was costing more than three times that amount. S2Li found staffing levels at the landfill to be similar to that observed elsewhere, while staffing at the transfer station was slightly above that seen for comparable tonnage sites. In this case, additional staffing within the

transfer facility was required to overcome a design flaw within the facility. The study concluded that while County staff was doing an excellent job of effectively and efficiently managing the County's solid waste system, annual funding for that system was approximately \$5 million short of annual expenses, and system reserves were rapidly diminishing.

Based on S2Li's findings, the Board agreed with staff recommendations to cease out-of-state waste transfer, directing all waste received by the County to be disposed of within the County's Baseline Landfill, while other alternatives were examined. Among the alternatives to be considered was the expansion of the Baseline Landfill. S2Li was directed to initiate the landfill expansion process, through the performance of an intensive geotechnical investigation.

S2Li was also tasked with developing a short-term and longer-term solid waste management plan, with an emphasis on waste conversion technologies. While the Board was apprehensive at the thought of expanding the Baseline Landfill, the promise of implementing a "green" waste conversion technology (WCT) process at the Baseline site seemed to resonate with every Board member. The study found expansion of the County's existing Class I landfill to be the most cost-effective alternative, providing the results of the geotechnical investigation were positive, while the County continued to follow WCT as a potential longer-term alternative worthy of consideration as the technology matures.

Spurred by its interest in waste conversion technologies, S2Li was directed to assist the County in the development of a request for proposals for WCT to be implemented by private industry to accommodate the County's waste stream. The Board quickly learned, as no conforming responses to the RFP were received, that WCT was not yet cost-competitive with many other forms of solid waste management, despite the promises made by multiple vendors visiting their offices.

S2Li was also asked to work with the County's legal representative in redrafting the County's solid waste ordinance. The franchise haulers enjoy the respect of the Marion County Commission, with the franchise fee a point of contention with the haulers. S2Li attended frequent meetings with the haulers and County staff in an attempt to address concerns with the new ordinance, which eventually passed on a 5-0 vote.

S2Li was and continues to be tasked with addressing groundwater contamination emanating from the former Newton Landfill, north of Ocala. The limits of contamination have been determined, and monitoring at the site is continuing, with the promise of continued monitoring only a realistic result. S2Li was subsequently tasked with replacing the 1,000 customer per day citizen's convenience center at the Newton Landfill, which is functioning well with a large volume of daily facility users. Two years later, S2Li was tasked with expanding the citizens convenience center at the County's Baseline Landfill.

Note that AVCON and Kessler Consulting, both of whom serve and are proposed to continue serving as subconsultants to S2Li in Nassau County, also serve as S2Li subconsultants in service to Marion County.

Title: **Services for Osceola County
Solid Waste Department**

Owner's Contact: Danny Sheaffer
Solid Waste Director

Address: 750 South Bass Road
Kissimmee, Florida 34746-6036
407-962-1102

Email: Danny.sheaffer@osceola.org

Period of Service: 2005 to 2020



S2Li was originally selected to serve Osceola County in 2005 and was re-selected to continue serving the County in 2009, and again in 2013. At the time of the initial selection, the County was operating a C&D disposal facility at Bass Road, and was maintaining closed Class I landfills at Bass Road, Southport, while

also monitoring water quality at Oren Brown Park. Odor issues at Bass Road led to its closure prior to the consumption of all available airspace, and S2Li developed the regrading and closure plans to implement the closure. As anticipated by S2Li, the closure of this C&D facility was sufficient to mitigate odor issues.

However, there are notable groundwater impacts beyond the property line at the Bass Road site, with S2Li and subconsultant TCG addressing these issues through the FDEP contamination assessment process. This process was successful, with FDEP accepting a recommendation for an expanded zone of discharge without the need to implement a groundwater cleanup program. S2Li and TCG were also successful in eliminating the need to continue monitoring water quality at Oren Brown Park.

At the Southport Landfill, S2Li assisted the County in the operation, maintenance, and repair of its landfill gas collection and flaring system, implementing required improvements to this 12-year-old system, as well as to the leachate storage system. S2Li also renewed the closure permit at the Southport site and addressed Federal greenhouse gas (GHG) monitoring requirements at this site. The County recently discontinued the operation of the landfill gas system at the Southport site due to dwindling gas generation, and to date has not observed any impact (odor, dying vegetation) in its absence.

In 2013, with the County in need of funding, S2Li was tasked with determining the required magnitude of the closure/post-closure instruments for all County landfill sites in accordance with GASB 18 as well as FDEP requirements. Based on S2Li's findings, the County was able to significantly reduce the size of its financial assurance instrument.

In 2020, S2Li was tasked with assisting the County in the procurement of a waste and recycling collections contractor. The process was successfully completed.

Note that The PRW Group and The Colinas Group, Inc., proposed to continue to serve Nassau County, are members of the S2Li Project Team that served Osceola County.

Title: **Services for Lake County
Solid Waste Division**

Owner's Contact: David Salinas
Solid Waste Program Manager

Address: 13130 County Landfill Road
Tavares, FL 32778
(352) 253-1670

Email: david.salinas@lakecountyfl.gov

Period of Service: 2012 to the present



Lake County is among S2Li's more recent selections, and the firm has only thus far served the County through two reselections. Services provided on behalf of the County have included Title V permitting and greenhouse gas reporting at the Astatula landfill site, renewal of the C&D operations permit at the Astatula site, preparation of multiple site stabilization reports for three Class I Landfills, and renewal of the closure permits for these three sites. While none were found to be completely stable, S2Li has been successful in eliminating water quality monitoring at one of the sites, and landfill gas monitoring at a differing site.

For the Phase III waste and ash cell at the Central site, S2Li obtained approval of a vertical expansion in conjunction with closure permitting, with FDEP approving a delayed schedule for implementing closure as the rapidly filled site undergoes settlement. S2Li also assessed the use of closure turf for site closure as part of its services for Lake County. Certification of construction completion by S2Li for the lined closure of this Phase III landfill is expected in November 2023.

S2Li and subconsultant KCI prepared a short-term/long-term solid waste management plan for Lake County addressing waste and recyclables collection, recycling approaches, system financing, and the potential for reopening the Astatula site for waste disposal. When waste collection issues arose several years later, S2Li/ KCI were asked to address questions raised by the County Board, addressing the Board in a workshop, during which a number of recommendations were offered for Board consideration. The Board agreed with the recommendations, and collection issues largely abated.

Note that Kessler Consulting, The PRW Group and The Colinas Group, proposed to continue serving Nassau County as subconsultants to S2Li, are subconsultants to S2Li in services provided on behalf of Lake County.

c. Project Team

A brief summary of S2Li as well as the subconsulting firms comprising the S2Li Project Team was discussed above. In this section, the credentials of the professionals offered and committed to serving Nassau County will be presented.

Managing the team's services for Nassau County is **Omar Smith, P.E.** Mr. Smith has managed all of S2Li's services for Nassau County since 2014, and subconsulting services for Nassau County from 1999 to 2014. With over 40 years of experience, his expertise spans virtually every solid waste-related discipline, from the planning, siting, design, implementation, and operation of solid waste facilities through financial analyses and contractor procurement.

While his technical strengths are significant and called upon every working day, his greatest strength is in the management of solid waste projects. His approach is the same whether the project is scheduled to be completed within a month or within a decade. With the organizational skills of a general in combat, Mr. Smith lays out a work plan with milestones, deliveries necessary to achieve the milestones, and the Project Team participants responsible for the deliveries. As due dates approach, he contacts each responsible individual to obtain assurance that the deliverable is on schedule and within budget. Those on the Project Team fully understand that the answer had better be in the affirmative. Nassau County observes Mr. Smith's thoroughness at least monthly when he emails County staff concerning the results of the firm's monthly landfill gas system operations and compliance inspection.

Supporting Mr. Smith as Project Director is **Sam Levin, P.E.** Similar to Mr. Smith, with over 40 years of solid waste-specific experience, Mr. Levin provides Nassau County with expertise in "soft" solid waste disciplines such as facility siting, through the hard design of solid waste facilities. As Project Director, Mr. Levin will be responsible for the Quality Assurance (QA) review of all deliverable work products.

There are two additional, non-technical strengths to be provided to Nassau County by Mr. Levin. First, Mr. Levin is an expert in the rules governing the management of solid wastes in Florida, as he has participated not only in rulemaking but also in the studies performed through Florida's Hinkley Center that have provided the basis for rulemaking. The other strength is Mr. Levin's unique relationship with FDEP at both the District and State levels, earned through decades of effective, truthful interaction. FDEP trusts what is told to them by Mr. Levin, and Mr. Levin fully understands the constraints (and reward system) under which the FDEP personnel operate.

Robert E. Mackey, P.E. will provide Nassau County with top-of-the-profession expertise in technical considerations relative to solid waste. Mr. Mackey holds leadership positions in many national and international technical societies, including ASTM, where he was given the Award of Merit, its highest honor, and the American Society of Civil Engineers, where he was named "Fellow." With over 39 years of solid waste experience, Mr. Mackey has successfully completed assignments as far away as Thailand, where he authored the Kingdom's solid waste practice guidelines. Mr. Mackey currently manages S2Li's assignments for Orange County and most of the firm's Seminole County projects.

As a Technical Consultant, Mr. Mackey will be tasked with addressing complex design issues if any should arise. He currently provides this service (free of charge) to FDEP, when challenging issues occur anywhere within the State, or during rulemaking.

Senior Engineer Greg Brunson, P.E., will serve as S2Li's Task Manager for projects performed by S2Li's staff. Mr. Brunson joined S2Li immediately after receiving his B.S. in solid waste in 2014. During that span, he rose from Project Engineer to Senior Engineer, participating in most of S2Li's projects, and is now a principal of the firm. True to form, Mr. Brunson is currently serving on most of S2Li's current assignments, in service to Brevard, Orange, Lake, Nassau, and Volusia Counties.

Richard L. Potts, P.G. of The Colinas Group, has a history of serving S2Li's clients since S2Li's 1997 start date. Mr. Potts is very familiar with hydrogeological issues associated with slurry wall facilities, as he has served at Seminole County's Osceola Road Landfill since the mid-1980s, and it was his work that created the foundation for the implementation of Seminole County's slurry wall. In Nassau County, Mr. Potts assisted in the stabilization assessment freeing up the Bryceville site from permitting requirements, as well as the reduction in water quality monitoring requirements for the Lofton Creek and West Nassau sites. Other S2Li clients/sites served by Mr. Potts on water quality and hydrogeological issues include Volusia County/Tomoka Farms Road Landfill, Orange County/Orange County Class III Landfill, APEC/George Town, and British West Indies.

Richard (Rick) Wilson, P.E. of the PRW Group, also shares an extensive background with S2Li's Principals, as all worked for the same firm in the early 1980s. Mr. Wilson is an expert at leachate management and has served as a subconsultant to S2Li for leachate assignments performed for Nassau, Volusia, Orange, and Seminole Counties, and for APEC and Republic Services. The services for Volusia County are noteworthy, as Mr. Wilson managed the technology selection, permitting, preliminary design, final design, construction services, and post-construction assistance for the County's on-site leachate treatment facility. For the West Nassau site, Mr. Wilson served as Task Manager on the blower replacement.

With 17 years of experience, **Becky Bray, P.E.**, will serve as Task Manager for GAI's civil engineering services performed on behalf of Nassau County. Ms. Bray is most familiar with the County and its solid waste system, having served as the County's Public Works Director prior to entering private practice as Senior Engineering Manager with GAI. Ms. Bray will serve the County from GAI's office in Jacksonville.

AVCON's **Luca DelVerme, P.E.** has provided structural engineering services for virtually all S2Li infrastructure projects for the last decade. Mr. DelVerme specializes in the structural design of solid waste facilities, including transfer stations, citizens drop-off centers, and scale facilities.

Sara Greivell of Grove Scientific & Engineering also worked closely with S2Li's Principals. For Nassau County, Ms. Greivell will continue to prepare the semi-annual and annual Title V-related reports to FDEP and annually perform the visual emissions testing of the flare and surface emission monitoring at the West Nassau Landfill and is currently performing Tier II testing as part of the program to end the County's Title V requirements.

Mitch Kessler of Kessler Consulting also fulfills both existing and potential County needs in addressing collection, franchising, and recycling issues. Known in solid waste circles as the premier expert for recycling in Florida, Mr. Kessler is currently working with S2Li in Lake County where he has addressed collection and recycling issues including contractor procurement. Previously, he assisted S2Li in preparing the collections and recycling components of the long-range solid waste management plan for Marion County, and the draft Solid Waste Management Plan for Nassau County.

Tom Smith, PSM President of the Smith Surveying Group, provides over 38 years of progressive experience in land surveying, in addition to civil engineering and land planning.

John Sullivan of Sullivan Environmental, Inc. (SEI) is a leading provider of specialty construction and environmental services to landfill, solid waste, and environmental clients. SEI's client base includes both private and public landfill owners/operators, consulting/engineering firms, general and specialty contractors, alternate energy and landfill gas developers, and other environmental and industrial firms. SEI's highly qualified staff is experienced in landfill gas system operation and maintenance; environmental monitoring and reporting; and installation/repair of landfill gas and leachate extraction systems.

d. Innovation

Following are innovative approaches utilized by S2Li in services to its clients

Landfill Gas Database for Nassau County: At the advice of S2Li, Nassau County subscribes to an online landfill gas database. Landfill gas system data obtained from routine, on-site system monitoring is relayed by site instrumentation to this database. The database can then be accessed to provide a location-specific view of items such as temperature or methane content, allowing for a systemwide view of the performance of the gas collection system while pointing out trouble areas. The database is also used to assist in compliance with Title V-related permitting and reporting requirements.

Also within Nassau County, after S2Li was able to demonstrate to FDEP that, as a result of a five-year study, there was no need to maintain an inward gradient within the lined landfill that was constructed within a slurry wall. After this was accomplished, S2Li has been able to work in unison with County staff to periodically turn off pumps that collect leachate for treatment, assisting in significant leachate management cost reductions.

Volusia County Elevated Temperature Study: A major concern associated with the elevated temperature within the North Cell was the possible impact on the bottom liner system. The project team was able to extend a thermocouple from the landfill perimeter to a location directly beneath the elevated temperature area, using a leachate collection pipe. It was determined that the observed subsurface temperature was well within the range that posed no threat to the liner system components.

Also, as part of the elevated temperature study, the S2Li project team was able to determine the probable cause of the elevated temperature genesis and to help in temperature reduction by reinitiating landfill gas collection within the affected area.

Orange County Class III Services: In Orange County, a significant portion of the landfill site was occupied by a vestige Class I landfill. The County required additional Class III landfill space, receiving in excess of 1,000 tons per day. S2Li successfully permitted, designed, and provided construction assistance for locating the Class III landfill on top of the vestige Class I landfill, providing the County with more than 80 years of disposal capacity.

Sometimes, avoiding claims of innovation is just as important.

S2Li has served Lake County for over a decade, and one of its many projects is for the closure of the County's Phase III Landfill. The County was approached by a vendor with a unique material it was offering as a top cap liner. The material, named "closure turf," has the appearance of artificial grass, and does not require the soil cover material associated with a conventional closure, as was the case for Nassau County's West Nassau Landfill closure. S2Li examined the material, its claimed performance, and the laboratory results of material testing. S2Li also examined the potential cost savings. S2Li found little economic

incentive for using closure turf, as the cost of soil cover within that specific location was low compared to many other Florida locations. S2Li also had some concerns with the absence of critical test results that the supplier did not and would not provide.

An additional innovation “opportunity” took place in Marion County. A vendor approached the County Manager, claiming its “black box” innovative technology could process the County’s waste for a fraction of the cost of landfilling. S2Li suggested that the County should proceed with caution if it chose to pursue what appeared to be an impossible claim, but the County believed it needed to seriously consider the proposal. S2Li suggested the issuance of a request for proposals, which could foster competition for processing of the County’s waste, while also requiring the submission of qualifications and experience, as well as the financial stability of proposing firms. S2Li was tasked with developing the RFP. The County received three responses, with none of the responses conforming to RFP requirements. Landfilling remains the County’s method of disposal.

e. Knowledge and Compliance with State and Local Laws

The S2Li Project Team provides a unique understanding of Florida’s rules and regulations governing solid waste facilities for two main reasons. The most obvious reason is by virtue of the rule development process. S2Li senior staff has participated in the State’s solid waste rulemaking process since the mid-1980s, primarily through participation in the technical awareness groups formed by FDEP, and solid waste research efforts through participation in The Hinkley Center for Solid and Hazardous Waste Management. This research provides the technical basis for rulemaking activities.

For example, consider Florida’s unique approach to bottom liner systems. S2Li’s Bob Mackey has earned an international reputation for his knowledge of leachate containment systems. During rulemaking for landfill liner requirements, FDEP requested and received his assistance in the drafting of the rule.

Similarly, Grove’s senior staff have participated in both Federal and State of Florida rulemaking activities with respect to air emissions management, including Title V requirements. The rules associated with emergency generator operation and reporting under Title V were developed with the assistance of Grove’s senior staff.

The not-so-obvious reason for the Project Team’s unique understanding has been earned in decades of service to Florida’s solid waste clients. There is no portion of the solid waste rule that has not been tested by the S2Li Project Team in the permitting, operation, closure, and post-closure of solid waste facilities. If a rule interpretation is required, rest assured that the Project Team has addressed this interpretation at some time in the past, and can cite the precedence upon which its interpretation was formulated.

The Project Team’s knowledge of local laws is enhanced by Civil Engineering Task Manager Becky Bray, P.E. Ms. Bray served in Nassau County government for a number of years, in a position that required an in-depth understanding of County regulations before departing for a position in private practice.



Nassau County
Director of Public Works

Omar Smith, P.E.
S2Li Project Manager

Sam Levin, P.E.
S2Li Project Director

Robert Mackey, P.E.
S2Li Technical Consultant

Gregory Brunson, P.E.
S2Li Task Manager

Clint Pletzer
Civil/Stormwater
Services
AVCON, Inc.

Rick Potts, P.G.
Hydrogeo/Water
Quality Services
The Colinas Group

Richard Wilson, P.E.
Leachate
Management
The PRW Group

Sara Greivell
Title V Services
Grove Scientific &
Engineering

Thomas J. Smith, PLS
Survey Services
Smith Surveying
Group

Mitch Kessler
Collection/Recycling
and Rate Studies
Services
Kessler
Consulting

John Sullivan
Landfill Gas
Specialty Services
Sullivan
Environmental



Project Team Organizational Chart

RELATED EXPERIENCE

Related Experience to Anticipated Scope of Services to be Performed	Nassau County	Brevard County	Lake County	Marion County	Orange County	Osceola County	Seminole County	Volusia County
Landfill Gas Operations and Maintenance	X	X	X		X	X	X	X
Permit Assistance	X	X	X	X	X	X	X	X
Compliance Monitoring	X		X	X		X	X	X
Inward Gradient Monitoring and Maintenance	X						X	
System Improvements	X	X	X	X	X	X	X	X
Landfill Post-Closure	X	X	X	X	X	X	X	X
Stormwater Pollution Prevention Plan	X				X	X	X	X
Financial Assurance	X	X	X		X	X	X	X
Coordination (monitoring, reporting or permitting requirements)	X	X	X	X	X	X	X	X
Miscellaneous Services:								
Regulatory Issues	X	X	X	X	X	X	X	X
Survey	X	X	X	X	X	X	X	X
Meetings and Presentations	X	X	X	X	X	X	X	X
Engineering Support (Bryceville Landfill)	X							
Ad Hoc Engineering	X							
Groundwater and Surface Water Monitoring (West Nassau and Lofton Creek Landfills)	X							

TAB 4 – RFQ UNDERSTANDING, APPROACH AND SCHEDULE

Tab 4 - RFQ Understanding, Approach, and Schedule

By virtue of having served Nassau County for more than two decades, the S2Li Project Team possesses a firm grasp of the County's needs with respect to solid waste, past issues that preceded today's needs, and future needs as the County addresses population growth as well as changes in technology and approaches in the management of solid wastes. The Project Team also understands the County's internal processes, preparing estimates of engineering and permitting costs for the following fiscal year well in time to be included within the coming year's budget.

Scopes of Services and Budget Estimates for each of the services described within Exhibit A.

In this section, the contents of these scopes of services will be described, followed by the S2Li approach to providing services in concert with a formal quality assurance/quality control procedure.

1. **Landfill Gas Operation and Maintenance** – The landfill gas collection and flaring system serving the West Nassau Landfill is comprised of collection wells and associated piping, a blower that evacuates the gas from these wells, and a flare to incinerate the collected gases. The S2Li Project Team and County staff work seamlessly in operating and maintaining the components of this system. County staff present at the site observe system operation daily and alerts S2Li of any apparent issues that may require immediate attention, or that should be further examined at the time of S2Li's regularly scheduled site visit. The issue may fall into any of four categories:

- Routine system operation
- Non-routine scheduled maintenance
- Non-routine emergency maintenance
- Parts and subcontractors for non-routine services.

For example, if the flare or blower is inoperative, as has happened in the past, County staff will notify S2Li immediately, and its field representatives mobilize to the site quickly as a non-routine emergency service, since continual flare operation represents a permit compliance issue. A collection well that is beginning to lean due to settlement is simply noted and addressed as non-routine scheduled maintenance during S2Li's regularly scheduled monthly site visit to confirm compliance with gas emission limits. For routine system operation, S2Li's Project Team technician visits the site monthly to obtain gas quality and flow readings, looks for distressed vegetation or similar signs of leakage, examines each hose for flex, and examines the flare for function. The technician is equipped to make routine system repairs. Upon completion of the monthly visit, the technician discusses with Project Manager Omar Smith, P.E. what was observed, problems encountered in performing maintenance activities, and any non-routine repairs (such as patching of the final cover system) that may require additional work or the use of a specialty contractor. The technician also calls Mr. Smith from the site with questions or concerns requiring more immediate attention. These monthly visits will also serve as a time to record greenhouse gas data as required by the United States Environmental Protection Agency (USEPA). S2Li subconsultant Grove Scientific will continue to perform the annual flare emissions testing.

Sullivan Environmental is a landfill gas specialty contractor serving as a subconsultant on the S2Li Project Team. The firm provides cost-effective services from installing landfill gas wells to maintaining/repairing flares to rehabilitating condensate pumps. When County staff or S2Li field representatives observe a landfill gas system issue in need of attention, the issue is discussed with Project Manager Omar Smith and Mr. Smith determines if and when the services of Sullivan Environmental are required.

As noted above, S2Li clearly defines landfill gas-related services as part of an individual Work Authorization Request that is submitted annually for the County's consideration. Mr. Smith and the assigned technician review the performance of the active landfill gas system components, including in the proposal provisions within the request for implementing known required system improvements, including parts in addition to manhours. County staff reviews the draft scope of services and budget estimate, and County recommendations incorporated into the proposal.

In accordance with the approved proposal, Mr. Smith submits a progress report to the County in conjunction with the monthly invoice, noting work tasks accomplished during the month, tasks to be performed in the coming month, and any issues deserving attention. Additionally, immediately following each site visit, Mr. Smith emails County staff noting if the wellfield is in compliance with emission requirements, or what activities are planned to bring the wellfield into compliance within regulatory time constraints.

2. **Permit Assistance** – Solid waste permitting for closed sites is currently managed by the District Offices of FDEP. S2Li provides Nassau County with a long and successful track record in working with the Northeast (Jacksonville) District Office in the permitting of solid waste facilities.

What approaches are responsible for this success? Up front and center is the mutual trust developed between S2Li staff and the Department's staff for over two decades. S2Li understands the technical side of environmental protection as well as the performance criteria by which FDEP staff is evaluated. FDEP staff understands S2Li's need to be cost-effective for its clients. The impact of this mutual understanding was very evident when S2Li, at the County's request, successfully deleted many costly specific conditions within the closure permit for the West Nassau site. Key to the removal of these conditions was the demonstration by S2Li that this action would not adversely affect the environment.

Next, let's see the results of this relationship at the Lofton Creek site. Rather than wait for the permit renewal, S2Li, at the County's request, proactively amended the closure permit, eliminating the need for landfill gas monitoring and significantly reducing water quality monitoring requirements.

Detecting a trend here? How about the Bryceville site? For background, by Federal and State rule, landfills are required to be monitored and maintained after closure for 20 or 30 years, depending on when the site was closed. For the Bryceville site, this period was 20 years. The end of this post-closure period does not necessarily end the permitting process. Removal of a closed landfill site from permitting in Florida requires a multi-criteria determination that the landfill is stable, no longer representing a threat to the environment. In the case of the Bryceville site, S2Li determined, and FDEP agreed, that the landfill had achieved stability, and the site removed from future permitting requirements (and associated costs) in 2016.

As a general approach, S2Li carefully examines monitoring data looking for trends that may be good news or bad news. The bad news observations often result in repairs, and the good news observations translated into reduced costs.

The good news/bad news scenario is clearly evident within S2Li's services for operation and maintenance of the landfill gas collection and flaring system. Underperforming wells are examined as a system, with the performance of surrounding wells assessed. If the full area encompassing several wells is underperforming, it is an indication that decomposition has advanced to the point at which continued evacuation of the well is unnecessary. Under these conditions, S2Li may

petition FDEP to discontinue evacuation of that particular well or family of wells. FDEP concurrence with such a request represents good news. On the other hand, it may be found that the well in question is within an area that is still producing appreciable landfill gas. That's the bad news side of the coin, as the well must be either remediated or replaced. Remediation is always the first choice, as it is the least expensive approach available.

There are other permits impacting County sites. Title V repermitting is required for the West Nassau site at intervals of five years. The next renewal is to be prepared and submitted in 2024. S2Li, assisted by subconsultant Grove Scientific, previously prepared the 2019 permit renewal application, and currently performs compliance monitoring and reporting in accordance with the permit, implementing improvements to the landfill gas collection and flaring system as necessary to remain in compliance with the permit.

S2Li successfully eliminated the need for an NPDES permit for the West Nassau site, receiving a Notice of Termination from FDEP.

- 3. Compliance Monitoring (Air)** – As noted above, the Title V permit for the West Nassau site requires extensive monitoring of the landfill gas management system, and the submission of a number of reports demonstrating compliance with air emission standards, based on the results of compliance monitoring. These include annual statements of compliance, annual emission reports, semi-annual reports, annual operating reports, and greenhouse gas reports. S2Li subconsultant Grove Scientific visits the site annually to perform a visual emission examination of the flare serving to incinerate the landfill gas collected at the site. S2Li maintains records as necessary to submit each required report, providing County staff with a draft copy for approval prior to submission or each.

Fundamental to compliance monitoring for air, S2Li's technicians visit the site monthly to obtain air-related monitoring data and make sure the County's data recorders are functioning properly, while examining each extraction well, making sure the landfill gas extraction and flaring system are functioning as intended. During this visit, extraction wells are "tuned" as necessary to operate within NSPS parameters.

How much longer will the County need to perform landfill gas-related compliance monitoring? As time passes, the quantity of landfill gas produced diminishes. This occurs as the closure liner system effectively mitigates the infiltration of precipitation, and the absence of moisture reduces gas generation. The rules provide for the cessation of monitoring and reporting once landfill gas production decreases to a specified minimum. S2Li, in conjunction with Grove Scientific, is in the second year of a process to eliminate the need for Title V-related monitoring and reporting for the West Nassau site. The first of three sampling events was completed, and the results very promising. The second sampling event is to be conducted in November 2023, and the third and final sampling event in March 2024. If the second and third events are also promising, S2Li/Grove will petition for the cessation of Title V-related reporting requirements.

From time to time, the flare will cease to function. When this occurs, S2Li will mobilize a contractor to implement repairs (if necessary), but will not authorize the contractor to perform any services without County pre-approval of the cost and proposed scope of the activity. Note that the cessation of Title V monitoring and reporting requirements does not enable the County to cease operation of the active landfill gas collection and flaring system.

S2Li's staff remain available to visit the site as necessary for non-routine visits, such as when the flare ceases to properly function, or a mower damages an extraction well.

4. **Inward Gradient Monitoring** – The West Nassau Landfill includes two adjacent fill areas. One of the fill areas uses a slurry wall for leachate containment. The other area used a slurry wall to facilitate filling operations well below grade and is fitted with a conventionally-lined disposal area within the slurry wall. FDEP was requiring the County to treat the water within both of the slurry walls as leachate, despite the fact that one of the two areas was not relying on the slurry wall for leachate containment. S2Li was successful in eliminating the requirement to pump and treat the liquid surrounding the conventionally-lined site as leachate on a 5-year trial period, substantially reducing the County's leachate treatment costs. FDEP was concerned that, in the absence of evacuating water from inside the "clean" area, a very strong outward gradient would form, jeopardizing the structure that was responsible for environmental protection. Nassau County agreed to continue monitoring the inward gradient across the slurry wall of both disposal sites to dispel this concern. In 2020, after five years of monitoring, FDEP agreed to end inward gradient monitoring of the clean site slurry wall.
5. **System Improvements** – With a focus on controlling costs, S2Li focuses on improvements to either reduce expenses to the solid waste system or facilitate compliance with permit requirements. Actions may range from replacing flexible tubing with more durable materials to replacing a large compressor designed (by others) to operate above the range of the ability of the landfill to supply landfill gas with a variable speed unit. With that in mind, system improvements will most likely include additional approaches to further reduce the cost of post-closure care at the County's facilities. The two largest expenses are associated with landfill gas management and water quality monitoring, with approaches to reducing the latter described later within this section. S2Li has found air management permitting requirements to be much more rigid in comparison to solid waste permitting, and it is unlikely that the County will be successful in negotiating a significant reduction in air monitoring requirements associated with the West Nassau site's Title V permit.

Leachate management represents a major post-closure operating cost for the West Nassau site, and S2Li has already significantly reduced, through permit modification, the quantity of liquid requiring treatment at this site. The quantity of leachate generated within the conventionally-lined cell at West Nassau should continue to diminish as the geomembrane top cap limits infiltration and the cell dries out over time.

Several years ago, the County was approached by a local utility, asking about the potential use of a closed County site as a solar farm. S2Li suggested caution in the pursuit of this approach, based on Sarasota County's experience at the Bee Ridge Road landfill, where such a system was abandoned as a result of maintenance challenges. In Palm Beach County, a municipality developed a solar field over its closed landfill. The system has operated successfully, but the cost of electricity produced is about double that of what is available from the local utility.

Nassau County is considering the implementation of improvements for its citizen's convenience center at the West Nassau site. S2Li provides extensive, very recent experience in the implementation of such improvements. Key to the firm's approach has been to clearly define site opportunities and constraints, provide for facilitated traffic flow, and making sure that provisions for easy cleanup of spillage are available, all with the safety of County personnel and the public in mind. Nassau County may also be planning for a new citizen's convenience center to be located in the eastern side of the County. S2Li assisted in estimating the capital improvement construction costs for this potential facility.

Nassau County is facing unprecedented growth that will affect current solid waste management programs and future needs. As the population density increases, the approaches for waste and recyclables collection may require adjustment. Subconsultant Kessler Consulting is expert in the design of waste collection programs to address these needs.

6. **Landfill Post-Closure** – The Bryceville site has already been converted from permit compliance to custodial care. From a stability standpoint, the only barrier to doing the same for the Lofton Creek site is stability with respect to water quality, and the only viable avenue to achieve this stability is to monitor and wait for the decomposition to run its course. The West Nassau site is far from approaching stability. A reduction in the frequency and/or list of parameters monitored at the West Nassau site represents perhaps the most viable means of reducing future post-closure care costs at that site.
7. **Stormwater Pollution Prevention Plan (SWPPP)** – In 2018, S2Li prepared a significant update to the Spill Prevention Control and Countermeasure (SPCC) Plan, and will be preparing an update to that plan this fall. With the retirement of the NPDES permit, periodic updating of the SWPPP, while still a recommended practice, is no longer a regulatory requirement.
8. **Financial Assurance** – S2Li has been providing this service on behalf of Nassau County annually since 1999. S2Li's Project Manager Omar Smith's approach is to visit each closed site annually, noting any required repairs, while closely examining the stormwater management, water quality monitoring and landfill cover systems for breakage, blockage, and erosion. Mr. Smith discusses with County representatives what was observed and what needs attention, such as missing fence sections apparently stolen for use elsewhere. Mr. Smith also obtains current costs for items such as mowing, leachate disposal, or soil supply as necessary to implement repairs. Mr. Smith's relationship with the County's financial representatives is similar to the relationship he and the rest of the S2Li Project Team have with FDEP representatives; mutual trust earned over years of working together.

Mr. Smith's draft financial assurance documents are first reviewed internally by Project Director Sam Levin and then submitted to the County for its review. Once suggested County improvements are incorporated into the documents, they are submitted to FDEP for approval.
9. **Coordination** – To date, S2Li's interactions with other contractors/service providers have been limited. That being said, S2Li has no difficulty in cooperating fully with any others in service to Nassau County. S2Li proposes to have subconsultant The Colinas Group (TCG) continue to provide water quality monitoring and reporting services, as TCG does for almost every S2Li client. Water quality-related services are also addressed in Item 12 below.
10. **Miscellaneous Services – Regulatory Issues:** S2Li is clearly the firm of choice for regulatory issues, primarily as a result of the expertise provided by proposed Project Director Sam Levin. Mr. Levin has participated in every solid waste rulemaking event in Florida since the mid-1980s and has been appointed by FDEP to serve on virtually every Technical Advisory Group (TAG) in support of solid waste rulemaking since 1990. He served as the legislative liaison for the Solid Waste Association of North America for 15 years, assisting both at the State and National levels in addressing solid waste legislation. He currently works with the National Waste & Recycling Association and their lobbyist annually in shaping solid waste-related legislation in Tallahassee.

Survey: Landfills under post-closure care require survey services on an infrequent basis. When a water quality monitoring well is mowed over and a replacement well installed, the top of casing must be located vertically and horizontally. A weir within a stormwater management discharge structure may become dislodged, and a survey performed to set the proper height. The S2Li Project Team includes Smith Surveying Group, a firm that values customer service like every member of the S2Li Project Team, and which provides Nassau County landfill-specific experience.

Meetings and Presentations: The Project Team's professionals are well experienced in attending and presenting at public meetings. Perhaps the most challenging of such meetings are associated with facility siting efforts, and the Project Team's senior professionals have provided this service for numerous siting studies within and beyond Florida's borders. Within Florida, senior S2Li Project Team staff have presented to Board of County Commission members in Brevard, Lake, Marion, Nassau, Palm Beach, and Volusia Counties. These same individuals regularly present technical papers at solid waste-related meetings and conferences. S2Li maintains its own audio/visual equipment for use at such presentations, and like most, utilizes Microsoft PowerPoint software to prepare and convey presentation material.

11. **Ad Hoc Engineering** – The S2Li Project Team includes the expertise to address virtually any solid waste-related service the County may require, including each and every possible service listed within this section of the RFQ, and other potential services including the management of waste tires, yard waste, and household hazardous waste. This depth of capabilities extends from planning through services during construction, and certification after construction has been completed. Key to S2Li's services is the understanding that Nassau County is very conservative with respect to its expenditures, and any expenditures must be justifiable and in the County's best interest.
12. **Water Quality Monitoring** – The County is required to obtain, analyze, assess, and report water quality results for samples obtained at the Lofton Creek and West Nassau sites, in accordance with FDEP requirements. The cost of water quality monitoring is among the highest faced by landfill owners in the post-closure period.

S2Li has assisted the County in the past in significantly reducing the level of effort (and associated costs) for such monitoring within the County's permits, and in procuring water quality collection, testing and reporting services from others. S2Li is most eager for longtime subconsultant TCG, responsible in the past for the significant reductions in permit monitoring requirements, to work directly with S2Li in the collection, analyses, interpretation and reporting of water quality sampling results. The approach used by TCG in assessing the results is to examine parameter concentrations for unusual concentrations or trends, applying geochemical concepts to best understand results. In many cases, observed elevated concentrations may be attributed to the soils specific to that location as opposed to the solid waste disposed within the same location.

13. **Other Services** – The scope of services included within the RFQ identifies services associated with the care of the County's closed landfills. Like other communities, solid waste issues within Nassau County may extend beyond facilities to items such as waste collection and addressing recycling goals. Kessler Consulting has assisted S2Li in development of the County's solid waste management plan, and in the annual recycling report submitted to FDEP, and works with S2Li in addressing these issues for Lake, Marion and Seminole Counties.

Approach to Quality Assurance and Quality Control

The first step toward implementing S2Li's approach to quality control and assurance has already taken place, through the selection of a subconsulting team that has worked extensively with S2Li in the past and has demonstrated a firm commitment to strictly follow S2Li's QA/QC procedures. Too much is at stake to allow for amateur hours when forming a project team. Almost all subconsultants utilized by S2Li, and in the case of this submittal, ALL SUBCONSULTANTS are smaller firms whose upper management directly participates in the preparation of engineering work products, with the skin in the game necessary to ensure any problems that arise are quickly addressed.

Each subconsultant is required to designate a Task Manager and internal reviewer for each assignment. The experts included within the organizational chart, and whose resumes are included in Tab 9, are the Task Managers for the cited disciplines. Internal reviewers are ordinarily senior staff members within the subconsulting firms and are designated on a project-specific basis. When the County requests the submission of a proposal by contacting Project Manager Omar Smith, S2Li contacts each Task Manager whose services will be required to discuss the scope of work and to develop a list of questions to be delivered to the County to clarify the County's needs, and the schedule for addressing those needs. Through an iterative process most often accomplished by email and telephone, a scope of services and budget based on that scope of services is developed. With County staff and Project Team participants in agreement, the proposal is subjected to the County's approval process.

Note that the proposal development process in many ways follows the engineering work product development process. For subconsultants, the Task Manager develops the proposed scope of services and budget, which must be approved by the subconsultant's internal quality control process before delivery to S2Li. S2Li's Project Manager reviews the subconsultant's proposal to see if its implementation will meet the client's objectives, and how well it may be integrated into the work of other subconsultants and that of S2Li. As has been the case since 1997, the proposal developed by S2Li's Project Manager cannot be submitted to the client prior to S2Li's internal quality assurance review.

Once the proposal has been approved, a project quality control document is prepared in draft form for review at the project kickoff meeting. The kickoff meeting is one of the infrequent occasions where all project participants are in attendance. For larger assignments, the detailed scope of services, schedule, and budget comprise the nucleus of a quality control document. These items are supplemented by a project's contact list, a description of the client's goals and objectives, and a discussion of any extraordinary issues associated with project implementation. Note that the schedule for the project includes the dates during which both consultant and client internal reviews are to occur.

In most cases, the kickoff meeting is held at the location where the work or activity is to be performed, and the location of the activity is visited after the meeting is adjourned. After the meeting, with the project underway, the draft stamp is removed from the quality control document, and the final document, revised as necessary, is emailed to each project participant.

As the project progresses, S2Li's multi-step review process is employed. S2Li's Project Manager performs the quality control review of all project deliverables, and the Project Director the quality assurance review before submission in draft form to the client for review. As separation by distance allows for the best quality assurance review, S2Li utilizes its two office locations to provide such separation. Work products prepared in the Maitland office receive a quality assurance review by Project Manager Omar Smith in Canton, Georgia, while Canton-produced work products receive a quality assurance review in Maitland. In most instances, S2Li President, Sam Levin, serves as Project Director. For those rare instances where that is not the case, Mr. Levin still performs a review of each work product before it is released to the client for review.

The frequency of employing this multi-step review process depends on the project size as well as the schedule. The default frequency for large projects is three sets of reviews; at the 30%, 60%, and 90% stages of project completion. For fast-track projects, or projects smaller in size, internal reviews may be reduced to being performed at the 45% and 90% stages of completion. For very small assignments, a single set of reviews may be performed.

This belt and suspenders review process has proven to be highly effective for S2Li, and more importantly, its clients. In most RFQs, proposers are asked to list any firm involvement in lawsuits in the past. In the 26-year history of S2Li, that number would be ZERO. That's right. Never!

Is it cost-effective for S2Li's clients to incur the financial burden of multiple reviews by senior staff? Trick question. While the senior staff performs a thorough review, decades of experience enable each reviewer to perform their duty in a time-efficient manner. From a differing perspective, what is the cost of the review process in comparison to the cost of redoing a defective work product?

Another component of the review process that has not yet been discussed is the role of County review. Nassau County's highly qualified and experienced staff have provided valuable insight relative to what has worked well (and not so well) within their experience, and from an operational standpoint, what permit conditions are reasonable versus those that are less so.

Is it appropriate to describe the S2Li QA/QC approach as innovative? Perhaps yes. Effective in controlling project costs? You betcha!

Development of Cost Estimates

S2Li relies on several sources in the development of cost estimates. First, the firm is very active in the implementation of solid waste facilities, with unit cost bids available for most projects a few mouse clicks away. Next, FDOT publishes unit costs it incurs for most construction-related items on a monthly basis, and these actual costs are available on the web, by geographic region within Florida, updated monthly. A third cost estimate approach is to inflate the estimate using any of a number of published inflation projections, based on the nature of the infrastructure. This inflation factor is applied from the initiation of construction to the midpoint of the construction schedule. Finally, a contingency is added, based on S2Li's "feel" for the accuracy of the estimate. For example, if the design is at the 30% stage of completion, the level of contingency is well above that for a 90% complete design.

TAB 5 – REFERENCES

TAB 5 – References

Reference Name:	Brevard County
Contact Person:	Thomas Mulligan, P.E.
Contact Address:	2725 Judge Fran Jamieson Way, Building A, First Floor Viera, Florida 32940
Phone Number:	321-633-2042 X59173
E-mail Address:	Thomas.mulligan@brevardfl.gov
Description of Services (past 5 years):	<ul style="list-style-type: none"> • Development of 3,000-acre solid waste facility • Evaluation of Sarno Road Class III LF Expansion • Design and permitting of Cell 2, Central Disposal Facility • Phase VII Sideslope Closure, Central Disposal Facility • Design of Cell 1 LFG Header, Central Disposal Facility • Realignment of Southwest Corner, Central Disposal Facility
Performance Period:	1999 to the Present
Total Contract Value:	Engineering Fees in Excess of \$6,000,000

Reference Name:	Seminole County
Contact Person:	Oliver Bond
Contact Address:	1950 State Road 419 Longwood, FL 32750
Phone Number:	407-665-2253
E-mail Address:	Obond@seminolecountyfl.gov
Description of Services: (past 5 years):	<ul style="list-style-type: none"> • Landfill gas collection system expansion, Osceola Road Landfill (ORLF) • Repermitting of the Central Transfer Station (CTS) • Monitoring/maintenance of landfill gas system, ORLF • Leachate tank inspection • Annual closure/post closure estimates, ORLF • Citizens area expansion (in progress) ORLF • Operational Assistance, ORLF and CTS • NPDES Permit Renewal, ORLF and CTS • Replacement of stormwater pipe through the slurry wall • Draft hydrant design, ORLF • Tipping floor repair, CTS (in progress) • New exit examination (in process), CTS • Black Goo leachate evaluation, ORLF
Performance Period:	1997 to the Present
Total Contract Value:	Engineering Fees of about \$2,000,000

Reference Name:	Orange County
Contact Person:	Brad Higerd, P.E.
Contact Address:	5901 Young Pine Road Orlando, FL 32829
Phone Number:	407-836-6605
E-mail Address:	Brad.higerd@ocfl.net
Description of Services: (past 5 years):	<ul style="list-style-type: none"> • Class III LF permit renewal/rephasing • Expansion of the landfill gas collection system • Access road and entrance road improvements, including outbound scale and scalehouse addition (in progress) • ERP Permitting • Tipping floor repair, Porter Transfer Station • Stormwater management services
Performance Period:	2003 to the present
Total Contract Value:	Engineering fees in excess of \$5,000,000

Reference Name:	Lake County
Contact Person:	David Salinas
Contact Address:	13130 County Landfill Road Tavares, FL 32778
Phone Number:	352-253-1679
E-mail Address:	David.salinas@lakecountyfl.gov
Description of Services: (past 5 years):	<ul style="list-style-type: none"> • Title V permitting and annual regulatory reporting for the Central Landfill • Solid Waste Management Plan • Annual closure/post closure estimates for multiple sites • Stabilization assessments for multiple vestige landfills • Repermitting for multiple closed landfill sites • Repermitting and closure permitting of the Phase III LF • Closure design and services during construction for the Phase III landfill • Tier 2 testing for the Central Landfill • Board workshop presentation on waste and recyclables franchise collection • Permit modification to reduce landfill gas testing frequency • C&D disposal facility repermitting
Performance Period:	2013 to the present
Total Contract Value:	Engineering fees in excess of \$500,000

TAB 6 – CURRENT WORKLOAD

Tab 6 – Current Workload

S2Li is currently participating in 68 active assignments. Most are through agreements with municipal clients, with a small fraction in service to private concerns. As is the practice in Nassau County, many of the agreements sunset annually and are replaced with new agreements at the start of the new fiscal year.

It is difficult to predict the availability of staff over a 3 to 5-year period, but very easy to cite S2Li's performance relative to assisting its clients, including Nassau County, in the on time, on the money delivery of its engineering work products, meeting both County and regulatory timetables. S2Li and its longtime subconsultants offer and commit the resources necessary to meet the needs of Nassau County. The personnel shown on the Organizational Chart are the personnel assigned to serve the County and are not randomly inserted just to highlight impressive resumes. These talented individuals will be made available as necessary to meet any schedule constraints required by Nassau County. With its landfills closed, the most important commitment is to visit the County on short notice when a regulatory or infrastructure issue surfaces. S2Li has repeatedly demonstrated the commitment to address the County's needs whenever they need to be addressed.

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TAB 7 – TECHNOLOGY

Tab 7 - Technology

When planning an infrastructure project, S2Li utilizes “opportunities and constraints” mapping to clearly visualize how best to utilize a site’s attributes. For example, when deciding how best to expand the citizens drop-off area at the entrance to the West Nassau Landfill, opportunities may include reuse of existing, on-site structures and operations visually remote from surrounding areas, existing compliance with local development regulations, and prior use as a solid waste facility, while constraints may include limited additional developable area (within cost constraints), and the need to manage stormwater as impervious surface area would increase in conjunction with a facility expansion. Depicting the site and its surroundings on a site map facilitates the many interactions between site opportunities and site constraints. S2Li utilized this approach in preparing the 10-year development plan for Volusia County’s Tomoka Farms Road Landfill as well as planning for expansion of Brevard County’s Central Disposal Facility. In Lake County, land use to the north of the facility assisted in dissuading construction of future landfill cells adjacent to development to the north.

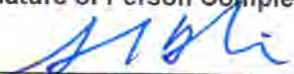
TAB 8 – COST

Tab 8 - Cost

S2Li has reviewed and acknowledges the County's policy concerning the negotiation of hourly rates by discipline.

TAB 9 – ATTACHMENTS/ADMINISTRATIVE INFORMATION

**FORM A
ADDENDA ACKNOWLEDGMENT**

Acknowledgment is hereby made of receipt of addenda issued during the solicitation period.	
Addendum # <u>1</u> through # <u>1</u>	
Signature of Person Completing: 	Date: October 18, 2023
Printed Name: Samuel B. Levin	Title: President

FORM B
SWORN STATEMENT
UNDER FLORIDA STATUTE 287.133(3)(a) ON PUBLIC ENTITY CRIMES

TO BE RETURNED WITH BID

THIS MUST BE SIGNED IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICER AUTHORIZED TO ADMINISTER OATHS.

1. This sworn statement is submitted with Bid, Proposal or Contract for S2L, Incorporated.
2. This sworn statement is submitted by S2L, Incorporated (entity submitting sworn statement), whose business address is 531 Versailles Drive, Suite 202, Maitland, Florida 32751 and its Federal Employee Identification Number (FEIN) is 59-3433432. (If the entity has no FEIN, include the Social Security Number of the individual signing this sworn statement: _____.)
3. My name is Samuel B. Levin (please print name of individual signing), and my relationship to the entity named above is President.
4. I understand that a "public entity crime" as defined in Paragraph 287.133(1)(g), Florida Statutes, means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or with the United States, including, but not limited to, any bid or contract for goods or services, any leases for real property, or any contract for the construction or repair of a public building or public work, to be provided to any public entity or an agency or political subdivision of any other state or of the United States and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.
5. I understand that "convicted" or "conviction" as defined in paragraph 287.133(1)(b), Florida Statutes, means a finding of guilt or a conviction or a public entity crime, with or without an adjudication of guilt, in any federal or state trial court of record relating to charges brought by indictment or information after July 1, 1989, as a result of a jury verdict, non-jury trial, or entry of a plea of guilty or nolo contendere.
6. I understand that an "affiliate" as defined in paragraph 287.133(1)(a), Florida Statutes, means:
 - a. A predecessor or successor of a person convicted of a public entity crime; or
 - b. An entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime. The term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate. The ownership by one person of shares constituting a controlling interest in another person, or a pooling of equipment or income among persons when not to fair market value under an arm's length agreement, shall be prima facie case that one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding thirty-six (36) months shall be considered an affiliate.
7. I understand that a "person" as defined in Paragraph 287.133(1)(e), Florida Statutes, means any natural person or entity organized under the laws of any state or of the United States with the legal power to enter into binding contract and which bids or applies to bid on contracts let by a public entity, or which otherwise transacts or applies to transact business with a public entity. The term "person" includes those officers, directors, executives, partners, shareholders, employees,

members, and agents who are active in management of an entity. 8. Based on information and belief, the statement, which I have marked below, is true in relation to the entity submitting this sworn statement. (Please indicate which statement applies.)

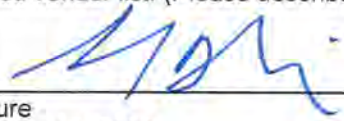
Neither the entity submitting this sworn statement, nor any of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in management of the entity, nor any affiliate of the entity have been charged with and convicted of a public entity crime subsequent to July 1, 1989.

The entity submitting this sworn statement, or one of more of the officers, directors, executives, partners, shareholders, employees, members, or agents who are active in management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989, and (Please indicate which additional statement applies.)

There has been a proceeding concerning the conviction before a hearing officer of the State of Florida, Division of Administrative Hearings. The final order entered by the Hearing Officer did not place the person or affiliate on the convicted vendor list. (Please attach a copy of the final order.)

The person or affiliate was placed on the convicted vendor list. There has been a subsequent proceeding before a hearing officer of the State of Florida, Division of Administrative Hearings. The final order entered by the hearing officer determined that it was in the public interest to remove the person or affiliate from the convicted vendor list. (Please attach a copy of the final order.)

The person or affiliate has not been placed on the convicted vendor list. (Please describe any action taken by or pending with the Department of General Services.)



Signature
October 18, 2023
Date

State of: Florida
County of: Orange

Sworn to (or affirmed) and subscribed before me by means of physical presence or online notarization, this 18th day of October, 2023 by Samuel B. Levin who is personally known to me or produced _____ as identification.

 Cheryl H. Hollister

Notary Public
My commission expires: February 20, 2025



7. REFERENCES:

List at least three references for which you have provided these services (similar scope/size) in the past five years - preferably government agencies.

Reference #1:

Company/Agency Name: Brevard County
 Address: 2725 Judge Fran Jamieson Way, Building A, First Floor, Viera, Florida 32940
 Contract Person: Thomas Mulligan, P.E.
 Phone: Email: Thomas.Mulligan@brevardfl.gov
 Project Description: Solid Waste Planning, Permitting and Design Services – See Tab 3 for more details
 Contract \$ Amount: Engineering fees in excess of \$6,000,000
 Date Completed: 1999 to present

Reference #2:

Company/Agency Name: Lake County
 Address: 13130 County Landfill Road, Tavares, Florida 32778
 Contract Person: David Salinas
 Phone: Email: David.Salinas@lakecountyfl.gov
 Project Description: Solid Waste Planning, Permitting and Design Services – See Tab 3 for more details
 Contract \$ Amount: Engineering fees in excess of \$500,000
 Date Completed: 2013 to present

Reference #3:

Company/Agency Name: Orange County
 Address: 5901 Young Pine Road, Orlando, Florida 32829
 Contract Person: Brad Higerd, P.E.
 Phone: Email: Brad.Higerd@ocfl.net
 Project Description: Solid Waste Planning, Permitting and Design Services – See Tab 3 for more details
 Contract \$ Amount: Engineering fees in excess of \$5,000,000
 Date Completed: 2003 to present

8. NOTICE OF PARTIES AND BINDING AUTHORITY

The following information is required if Respondent is selected for award of a contract with the County.

Notice to Parties

All notices, demands, requests for approvals or other communications shall be in writing, and shall be sent by registered or certified mail, postage prepaid, return receipt requested, or overnight delivery service (such as federal express), or courier service or by hand delivery to:

Contractor Name: S2L, Incorporated
 Attn: Samuel Levin
 Mailing Address: 531 Versailles Drive, Suite 202
Maitland, Florida 32751

Binding Authority

The person to execute the contract must be an officer of the company. If not an officer of the company, Respondent must provide proof of signing authority. Please provide the name, email address, and phone number of person who will execute the contract, if awarded.

Name of Person to execute contract (if awarded): Samuel Levin
 Title: President
 Email Address: slevin@s2li.com
 Phone Number: 407-475-9163

FORM D DRUG FREE WORKPLACE CERTIFICATE

I, the undersigned, in accordance with Florida Statute 287.087, hereby certify that
S2L, Incorporated (print or type name of firm):

1. Publishes a written statement notifying that the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance in the workplace named above and specifying actions that will be taken against violations of such prohibition.
2. Informs employees about the dangers of drug abuse in the workplace, the firm's policy of maintaining a drug free working environment, and available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug use violations.
3. Gives each employee engaged in providing commodities or contractual services that are under bid or proposal, a copy of the statement specified above.
4. Notifies the employees that as a condition of working on the commodities or contractual services that are under bid or proposal, the employee will abide by the terms of the statement and will notify the employer of any conviction of, plea of guilty or nolo contendere to, any violation of Chapter 1893, or any controlled substance law of the State of Florida or the United States, for a violation occurring in the work place, no later than five (5) days after such conviction, and requires employees to sign copies of such written statement to acknowledge their receipt.
5. Imposes a sanction on, or requires the satisfactory participation in, a drug abuse assistance or rehabilitation program, if such is available in the employee's community, by any employee who is so convicted.
6. Makes a good faith effort to continue to maintain a drug free workplace through the implementation of a drug free workplace program.

"As a person authorized to sign a statement, I certify that the above-named business, firm, or corporation complies fully with the requirements set forth herein."

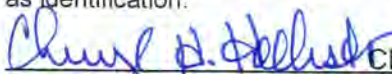


 Authorized Signature
 October 18, 2023

 Date Signed

State of: Florida
County of: Orange

Sworn to (or affirmed) and subscribed before me by means of X physical presence or _____ online notarization, this 18th day of October, 2023 by _____ who is X personally known to me or _____ produced _____ as identification.


 _____ Cheryl H. Hollister
 Notary Public
 My commission expires: February 20, 2025



**FORM E
E-VERIFY AFFIDAVIT**

**NASSAU COUNTY E-VERIFY FORM UNDER
SECTION 448.095, FLORIDA STATUTES**

Project Name: Professional Engineering Services for Solid Waste Landfills and Other Related Ancillary Facilities
Bid No./Contract No.: NC23-056-RFQ

DEFINITIONS:

"Contractor" means a person or entity that has entered or is attempting to enter into a contract with a public employer to provide labor, supplies, or services to such employer in exchange for salary, wages, or other remuneration. "Contractor" includes, but is not limited to, a vendor or consultant.

"Subcontractor" means a person or entity that provides labor, supplies, or services to or for a contractor or another subcontractor in exchange for salary, wages, or other remuneration.

"E-Verify System" means an internet-based system operated by the United States Department of Homeland Security that allows participating employers to electronically verify the employment eligibility of newly hired employees.

Effective January 1, 2021, Contractors, shall register with and use the E-Verify System in order to verify the work authorization status of all newly hired employees. Contractor shall register for and utilize the U.S. Department of Homeland Security's E-Verify System to verify the employment eligibility of:

- a. All persons employed by a Contractor to perform employment duties within Florida during the term of the contract; and
- b. All persons (including subvendors/subconsultants/subcontractors) assigned by Contractor to perform work pursuant to the contract with Nassau County. The Contractor acknowledges and agrees that registration and use of the U.S. Department of Homeland Security's E-Verify System during the term of the contract is a condition of the contract with Nassau County; and
- c. Should vendor become the successful Contractor awarded for the above-named project, by entering into the contract, the Contractor shall comply with the provisions of Section 448.095, Florida Statutes, "Employment Eligibility", as amended from time to time. This includes, but is not limited to, registration and utilization of the E-Verify System to verify the work authorization status of all newly hired employees. The Contractor shall also execute the attached affidavit (Attachment "A") attesting that the Contractor does not employ, contract with, or such affidavit for the duration of the contract; and
- d. Contractor shall also require all subcontractors to execute the attached affidavit (Attachment "B") attesting that the subcontractor does not employ, contract with, or subcontract with, an unauthorized alien. The Contractor shall maintain a copy of such affidavit for the duration of the contract.

CONTRACT TERMINATION:

- a. If Nassau County has a good faith belief that a Contractor has knowingly violated §448.09(1) or §448.095(2), Florida Statutes, the contract shall be terminated.
- b. If Nassau County has a good faith belief that a subcontractor has knowingly violated §448.09(1) or §448.095(2), Florida Statutes, but the Contractor otherwise complied with Chapter 448, Florida Statutes, Nassau County shall promptly notify the Contractor and order the Contractor to immediately terminate the contract with the subcontractor.
- c. A contract terminated under subparagraph a) or b) is not a breach of contract and may not be considered as such.
- d. Any challenge to termination under this provision must be filed in the Circuit Court no later than twenty (20) calendar days after the date of termination.
- e. If the contract is terminated for a violation of the Statute by the Contractor, the Contractor may not be awarded a public contract for a period of one (1) year after the date of termination.

**FORM E - 1
CONTRACTOR E-VERIFY AFFIDAVIT**

I hereby certify that S2L, Incorporated (Contractor Company Name) does not employ, contract with, or subcontract with an unauthorized alien, and is otherwise in full compliance with Section 448.095, Florida Statutes.

All employees hired on or after January 1, 2021 have had their work authorization status verified through the E-Verify system.

A true and correct copy of S2L, Incorporated (Contractor Company Name) proof of registration in the E-Verify system is attached to this Affidavit.

Samuel B. Levin
Print Name: Samuel B. Levin
Date: October 18, 2023

STATE OF FLORIDA
COUNTY OF ORANGE

The foregoing instrument was acknowledged before me by means of physical presence or online notarization, this 18th day of October, 2023 (Date) by Samuel B. Levin (Name of Officer or Agent, Title of Officer or Agent) of S2L, Incorporated (Name of Contractor Company Acknowledging), a Florida (State or Place of Incorporation) Corporation, on behalf of the Corporation. He/She is personally known to me or has produced _____ as identification.

Cheryl H. Hollister
Notary Public
Cheryl H. Hollister
Printed Name



My Commission Expires: February 20, 2025

FORM E - 2
SUBCONTRACTOR E-VERIFY AFFIDAVIT

I hereby certify that AVCON, INC. (Subcontractor Company Name) does not employ, contract with, or subcontract with an unauthorized alien, and is otherwise in full compliance with Section 448.095, Florida Statutes.

All employees hired on or after January 1, 2021 have had their work authorization status verified through the E-Verify system.

A true and correct copy of AVCON, INC.'s (Subcontractor Company Name) proof of registration in the E-Verify system is attached to this Affidavit.

Sandeep Singh
Print Name: Sandeep Singh, PE, President
Date: September 22, 2023

STATE OF FLORIDA
COUNTY OF Orange

The foregoing instrument was acknowledged before me by means of physical presence or online notarization, this 22nd ^{*day of September 2023*} (Date) by Sandeep Singh, PE, President (Name of Officer or Agent, Title of Officer or Agent) of AVCON, INC. (Name of Contractor Company Acknowledging), a Florida (State or Place of Incorporation) Corporation, on behalf of the Corporation. He/She is personally known to me or has produced _____ as identification.

Jennifer E. Sisk
Notary Public

Printed Name: _____
My Commission Expires: _____




Company ID Number: 402816

To be accepted as a participant in E-Verify, you should only sign the Employer's Section of the signature page. If you have any questions, contact E-Verify at 888-464-4218.

Employer AVCON, INC.	
Anne Rollins	
Name (Please Type or Print)	Title
Electronically Signed	03/22/2011
Signature	Date
Department of Homeland Security – Verification Division	
USCIS Verification Division	
Name (Please Type or Print)	Title
Electronically Signed	03/22/2011
Signature	Date

Information Required for the E-Verify Program

Information relating to your Company:

Company Name:	AVCON, INC.
Company Facility Address:	5555 East Michigan Street, Suite 200
	Orlando, FL 32822
Company Alternate Address:	5555 East Michigan Street, Suite 200
	Orlando, FL 32822
County or Parish:	ORANGE
Employer Identification Number:	592890463

**FORM E - 2
SUBCONTRACTOR E-VERIFY AFFIDAVIT**

I hereby certify that THE COLINAS GROUP, INC. (Subcontractor Company Name) does not employ, contract with, or subcontract with an unauthorized alien, and is otherwise in full compliance with Section 448.095, Florida Statutes.

All employees hired on or after January 1, 2021 have had their work authorization status verified through the E-Verify system.

A true and correct copy of THE COLINAS GROUP, INC. (Subcontractor Company Name) proof of registration in the E-Verify system is attached to this Affidavit.

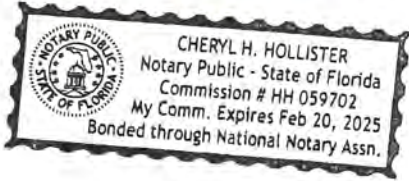
[Signature]
Print Name: RICHARD L. POTTS, JR. P.G.
Date: 10/10/23

STATE OF FLORIDA
COUNTY OF Orange

The foregoing instrument was acknowledged before me by means of physical presence or online notarization, this 10th day of October (Date) by Richard L. Potts (Name of Officer or Agent, Title of Officer or Agent) of The Colinas Group (Name of Contractor Company Acknowledging), a Florida (State or Place of Incorporation) Corporation, on behalf of the Corporation. He/She is personally known to me or has produced _____ as identification.

[Signature]
Notary Public
Cheryl H. Hollister
Printed Name

My Commission Expires: February 20, 2025





Company ID Number: 2292314

Information Required for the E-Verify Program	
Information relating to your Company:	
Company Name	The Colinas Group, Inc.
Company Facility Address	2031 E. Edgewood Drive Suite #5 Lakeland, FL 33803
Company Alternate Address	
County or Parish	POLK
Employer Identification Number	593490280
North American Industry Classification Systems Code	541
Parent Company	
Number of Employees	10 to 19
Number of Sites Verified for	1 site(s)



Company ID Number: 2292314



Are you verifying for more than 1 site? If yes, please provide the number of sites verified for in each State:

FL 1



Company ID Number: 2292314

Information relating to the Program Administrator(s) for your Company on policy questions or operational problems:

Name	Mark R Stephens
Phone Number	8636699141
Fax	
Email	stephensmr@cs.com



Company ID Number: 2292314



This list represents the first 20 Program Administrators listed for this company.



Company ID Number: 2292314

Approved by:

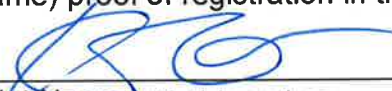
Employer The Colinas Group, Inc.	
Name (Please Type or Print) Mark R Stephens	Title
Signature Electronically Signed	Date 10/10/2023
Department of Homeland Security – Verification Division	
Name (Please Type or Print) USCIS Verification Division	Title
Signature Electronically Signed	Date 10/10/2023

**FORM E - 2
SUBCONTRACTOR E-VERIFY AFFIDAVIT**

I hereby certify that GAI Consultants, Inc. (Subcontractor Company Name) does not employ, contract with, or subcontract with an unauthorized alien, and is otherwise in full compliance with Section 448.095, Florida Statutes.

All employees hired on or after January 1, 2021 have had their work authorization status verified through the E-Verify system.


A true and correct copy of GAI Consultants, Inc. (Subcontractor Company Name) proof of registration in the E-Verify system is attached to this Affidavit.



Print Name: Kathleen Leo
Date: September 19, 2023

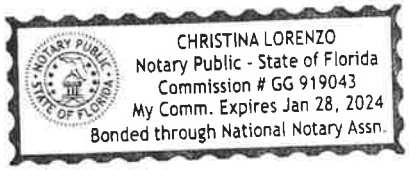
STATE OF FLORIDA
COUNTY OF Orange


The foregoing instrument was acknowledged before me by means of physical presence or online notarization, this September 19, 2023 (Date) by Kathleen Leo (Name of Officer or Agent, Title of Officer or Agent) of GAI Consultants, Inc. (Name of Contractor Company Acknowledging), a Florida (State or Place of Incorporation) Corporation, on behalf of the Corporation. He/She is personally known to me or has produced _____ as identification.



Notary Public
Christina Lorenzo
Printed Name

My Commission Expires: Jan. 28, 2024



 An official website of the United States government
[Here's how you know](#)



Menu 

My Company Account

My Company Profile

Company Information

Company Name

GAI Consultants, Inc.

Doing Business As (DBA) Name

Company ID

775821

Enrollment Date

Apr 23, 2014

Employer Identification Number (EIN)

251260999

Unique Entity Identifier (UEI)

DUNS Number

Total Number of Employees

500 to 999

NAICS Code

541

Sector

Professional, Scientific, and Technical Services

Subsector

Professional, Scientific, and Technical Services

[Edit Company Information](#)

Employer Category

Employer Category

Federal Contractor with FAR E-Verify Clause

[Edit Employer Category](#)

Company Addresses

Physical Address

385 East Waterfront Drive
Homestead, PA 15120

Mailing Address

385 East Waterfront Drive
Homestead, PA 15120

[Edit Company Addresses](#)

Hiring Sites

We have implemented a new policy and require more information for existing and future hiring sites.

Number of Sites

24

[Edit Hiring Sites](#)

Company Access and MOU

My Company is Configured to:

Verify Its Own Employees

Memorandum of Understanding

[View Current MOU](#)

[U.S. Department of Homeland Security](#) [U.S. Citizenship and Immigration Services](#)

[Accessibility](#) [Plug-ins](#) [Site Map](#)



FORM E - 2 SUBCONTRACTOR E-VERIFY AFFIDAVIT

I hereby certify that Grove Scientific and Engineering (Subcontractor Company Name) does not employ, contract with, or subcontract with an unauthorized alien, and is otherwise in full compliance with Section 448.095, Florida Statutes.

All employees hired on or after January 1, 2021 have had their work authorization status verified through the E-Verify system.

A true and correct copy of Grove Scientific and Engineering's (Subcontractor Company Name) proof of registration in the E-Verify system is attached to this Affidavit.

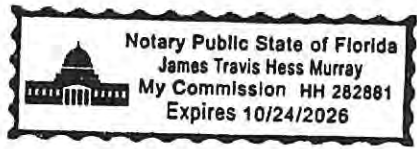
[Signature]
Print Name: Daniel Sterling
Date: 09-19-2023

STATE OF FLORIDA
COUNTY OF Orange

The foregoing instrument was acknowledged before me by means of physical presence or online notarization, this 9/19/23 (Date) by Daniel Sterling (Name of Officer or Agent, Title of Officer or Agent) of Grove Scientific and Engineering (Name of Contractor Company Acknowledging), a Florida (State or Place of Incorporation) Corporation, on behalf of the Corporation. He She is personally known to me or has produced _____ as identification.

[Signature]
Notary Public
J. Travis Hess Murray
Printed Name

My Commission Expires: 10/24/26





My Company Account

My Company Profile

Company Information

Company Name

Grove Scientific & Engineering

Doing Business As (DBA) Name

Grove Scientific & Engineering

Company ID

2275429

Enrollment Date

Sep 19, 2023

Employer Identification Number (EIN)

592008167

Unique Entity Identifier (UEI)

DUNS Number

364624049

Total Number of Employees

5 to 9

NAICS Code

541

Sector

Professional, Scientific, and Technical Services

Subsector

Professional, Scientific, and Technical Services

[Edit Company Information](#)

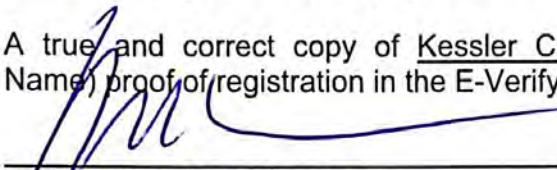
Employer Category

**FORM E - 2
SUBCONTRACTOR E-VERIFY AFFIDAVIT**

I hereby certify that Kessler Consulting, Inc. (Subcontractor Company Name) does not employ, contract with, or subcontract with an unauthorized alien, and is otherwise in full compliance with Section 448.095, Florida Statutes.

All employees hired on or after January 1, 2021 have had their work authorization status verified through the E-Verify system.

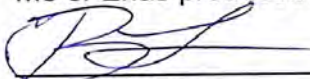
A true and correct copy of Kessler Consulting, Inc. (Subcontractor Company Name) proof of registration in the E-Verify system is attached to this Affidavit.



Print Name: Mitch Kessler
Date: September 20, 2023


STATE OF FLORIDA
COUNTY OF Hillsborough

The foregoing instrument was acknowledged before me by means of physical presence or online notarization, this 20th day of September 2023 (Date) by Mitch Kessler, President (Name of Officer or Agent, Title of Officer or Agent) of Kessler Consulting, Inc. (Name of Contractor Company Acknowledging), a Florida (State or Place of Incorporation) Corporation, on behalf of the Corporation. He/She is personally known to me or has produced _____ as identification.



Notary Public
Benjamin Larochelle
Printed Name

My Commission Expires: 3/18/27

 **BENJAMIN LAROCHELLE**
Notary Public
State of Florida
Comm# HH339542
Expires 3/18/2027



Company ID Number: 782064

Approved by:

Employer Kessler Consulting, Inc.	
Name (Please Type or Print) Mitch E Kessler	Title President
Signature Electronically Signed	Date 05/15/2014
Department of Homeland Security – Verification Division	
Name (Please Type or Print) USCIS Verification Division	Title
Signature Electronically Signed	Date 05/15/2014



Company ID Number: 782064

Information Required for the E-Verify Program

Information relating to your Company:

Company Name	Kessler Consulting, Inc.
Company Facility Address	14620 N. Nebraska Avenue Bldg D Tampa, FL 33613
Company Alternate Address	
County or Parish	HILLSBOROUGH
Employer Identification Number	593050164
North American Industry Classification Systems Code	541
Parent Company	
Number of Employees	10 to 19
Number of Sites Verified for	1 site(s)



Company ID Number: 782064

Are you verifying for more than 1 site? If yes, please provide the number of sites verified for in each State:

FL

1



Company ID Number: 782064

Information relating to the Program Administrator(s) for your Company on policy questions or operational problems:

Name	Nikki E McNew
Phone Number	813971833313
Fax	8138139718582
Email	nmcnew@kesconsult.com



Company ID Number: 782064


This list represents the first 20 Program Administrators listed for this company.

**FORM E - 2
SUBCONTRACTOR E-VERIFY AFFIDAVIT**

I hereby certify that PRW Group, LLC (Subcontractor Company Name) does not employ, contract with, or subcontract with an unauthorized alien, and is otherwise in full compliance with Section 448.095, Florida Statutes.

All employees hired on or after January 1, 2021 have had their work authorization status verified through the E-Verify system.

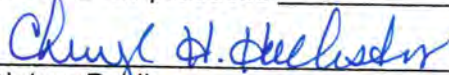
A true and correct copy of PRW Group, LLC (Subcontractor Company Name) proof of registration in the E-Verify system is attached to this Affidavit.



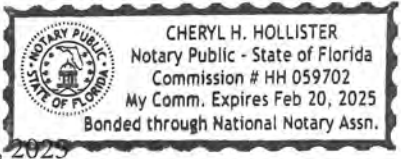
Print Name: Richard Wilson
Date: 9/19/23

STATE OF FLORIDA
COUNTY OF Orange


The foregoing instrument was acknowledged before me by means of physical presence or online notarization, this 19th Day of Sept. 2023 (Date) by Richard Wilson (Name of Officer or Agent, Title of Officer or Agent) of PRW Group (Name of Contractor Company Acknowledging), a Florida (State or Place of Incorporation) Corporation, on behalf of the Corporation. He/She is personally known to me or has produced _____ as identification.



Notary Public
Cheryl H. Hollister
Printed Name



My Commission Expires: February 20, 2025

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Menu ☰

My Company Account

My Company Profile

Company Information

Company Name

PRW GROUP LLC

Doing Business As (DBA) Name

Company ID

2275682

Enrollment Date

Sep 19, 2023

Employer Identification Number (EIN)

223890244

Unique Entity Identifier (UEI)

DUNS Number

Total Number of Employees

1 to 4

NAICS Code

541

Sector

Professional, Scientific, and Technical Services

Subsector

Professional, Scientific, and Technical Services

[Edit Company Information](#)

Employer Category

Employer Category

None of these categories apply

[Edit Employer Category](#)

Company Addresses

Physical Address

17337 Kennedy Drive
North Redington Beach, FL 33708

Mailing Address

Same as Physical Address

[Edit Company Addresses](#)

FORM E - 2 SUBCONTRACTOR E-VERIFY AFFIDAVIT

I hereby certify that Smith Surveying Group (Subcontractor Company Name) does not employ, contract with, or subcontract with an unauthorized alien, and is otherwise in full compliance with Section 448.095, Florida Statutes.

All employees hired on or after January 1, 2021 have had their work authorization status verified through the E-Verify system.

A true and correct copy of Smith Surveying Group (Subcontractor Company Name) proof of registration in the E-Verify system is attached to this Affidavit.

Tom Smith

Print Name: Tom Smith, President

Date: 10/9/2023

STATE OF FLORIDA
COUNTY OF Duval

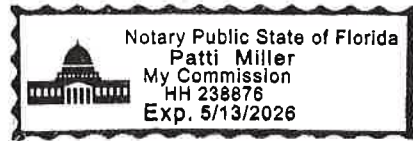
The foregoing instrument was acknowledged before me by means of unphysical presence or online notarization, this 9th (Date) by October 2023 (Name of Officer or Agent, Title of Officer or Agent) of President, Smith Surveying Group (Name of Contractor Company Acknowledging), a Florida (State or Place of Incorporation) Corporation, on behalf of the Corporation. He/She is unpersonally known to me or unhas produced as identification.

Patti Miller

Notary Public


Printed Name

My Commission Expires: _____



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Menu 

My Company Account

My Company Profile

Company Information

Company Name

Smith Surveying Group, LLC

Doing Business As (DBA) Name

Company ID

1596202

Enrollment Date

Oct 08, 2020

Employer Identification Number (EIN)

842090369

Unique Entity Identifier (UEI)

DUNS Number

040034778

Total Number of Employees

10 to 19

NAICS Code

541

Sector

Professional, Scientific, and Technical Services

Subsector

Professional, Scientific, and Technical Services

[Edit Company Information](#)

Employer Category

Employer Category

Employer Category

None of these categories apply

[Edit Employer Category](#)

Company Addresses

Physical Address

9770 Baymeadows Road
Suite #121
Jacksonville, FL 32256

Mailing Address

Same as Physical Address

[Edit Company Addresses](#)

Hiring Sites

We have implemented a new policy and require more information for existing and future hiring sites.

Number of Sites

1

[Edit Hiring Sites](#)

Company Access and MOU

My Company is Configured to:

Verify Its Own Employees

Memorandum of Understanding

[View Current MOU](#)

[U.S. Department of Homeland Security](#) [U.S. Citizenship and Immigration Services](#)

**FORM E - 2
SUBCONTRACTOR E-VERIFY AFFIDAVIT**

I hereby certify that Sullivan Environmental, Inc. (Subcontractor Company Name) does not employ, contract with, or subcontract with an unauthorized alien, and is otherwise in full compliance with Section 448.095, Florida Statutes.


All employees hired on or after January 1, 2021 have had their work authorization status verified through the E-Verify system.

A true and correct copy of Sullivan Environmental, Inc. (Subcontractor Company Name) proof of registration in the E-Verify system is attached to this Affidavit.


Print Name: Kristine Sullivan
Date: 9/21/23

STATE OF FLORIDA
COUNTY OF pinellas

The foregoing instrument was acknowledged before me by means of physical presence or online notarization, this 09/21/2023 (Date) by Kristine S Sullivan (Name of Officer or Agent, Title of Officer or Agent) of Sullivan Environmental (Name of Contractor Company Acknowledging), a FL (State or Place of Incorporation) Corporation, on behalf of the Corporation. He/She is personally known to me or has produced FLDL as identification.


Notary Public
Elisha Eldredge
Printed Name

My Commission Expires: 11/03/2025



ELISHA ELDREDGE
Notary Public
State of Florida
Comm# HH194385
Expires 11/3/2025



Company ID Number: 1769319

Approved by:

Employer Sullivan Environmental, Inc.	
Name (Please Type or Print) Kristine Sullivan	Title
Signature Electronically Signed	Date 12/16/2021
Department of Homeland Security – Verification Division	
Name (Please Type or Print)	Title
Signature Electronically Signed	Date



Company ID Number: 1769319

Information Required for the E-Verify Program

Information relating to your Company:

Company Name	Sullivan Environmental, Inc.
Company Facility Address	4448 13th LN NE Saint Petersburg, FL 33703
Company Alternate Address	
County or Parish	PINELLAS
Employer Identification Number	204922222
North American Industry Classification Systems Code	238
Parent Company	
Number of Employees	1 to 4
Number of Sites Verified for	1



Company ID Number: 1769319

Information relating to the Program Administrator(s) for your Company on policy questions or operational problems:

Name Kristine Sullivan
Phone Number (813) 625 - 2952
Fax Number
Email Address kristine@sullivanenv.com



SAMUEL B. LEVIN, P.E.
President
S2L, Incorporated

Mr. Levin has been active in the field of solid waste management since 1974. He has participated in a diverse range of projects including sanitary landfill siting and design, transfer station implementation/ upgrading, waste recycling programs, air emissions management, control of noise emissions, and municipal and industrial waste treatment. He founded S2L, Incorporated (S2Li) in March 1997 to best focus on the needs of solid waste clients worldwide.

PROJECT EXPERIENCE

Mr. Levin has directed S2Li's multifaceted efforts for Nassau County, Florida. Assignments have included operation and maintenance of the landfill gas management system at the West Nassau Landfill, cessation of permitting for the Bryceville Landfill, modification of the closure permits for the Lofton Creek and closed West Nassau sites to reduce costs, and providing operational assistance as requested by County staff.

Mr. Levin has served as Project Director for landfill design and permitting services in Seminole County, Florida since 1985. This includes services at the County's award-winning Osceola Road Solid Waste Management Facility. This comprehensive assignment has included the performance of a detailed hydrogeological assessment, landfill gas design and permitting, leachate management, liner equivalency analysis, slurry wall design, and conformance with the terms and conditions of a consent agreement and subsequent permits between the County and Florida Department of Environmental Protection (FDEP). He served the County in evaluating privatization alternatives, assisting staff in the preparation of Request for Qualification and Request for Proposals (RFQ) and (RFP) documents. He directed the conversion of the former Sanlando Landfill into a five-field softball complex, complete with three-story administrative complex. More recently, he has assisted the County in the permitting, design and construction of several phases of the landfill gas collection and flaring system, in renewing the site's Title V permit, in the planning for capital projects, in the assessment of partial closure, leachate management and landfill gas management alternatives, in the preparation of procurement documents for landfill gas utilization, and in remediation of the leachate collection system serving the slurry walled site.

For Orange County, Florida, Mr. Levin has served as director of S2Li's services provided under multiple continuing contracts, including development of Class III capacity over a former Class I landfill, third party review of a partial Class I closure, upgrading of leachate cleanouts, partial Class III Landfill closure including active landfill gas management, and numerous transfer station remediation projects. Prior to the formation of S2Li, he served as technical manager for services associated with the Orange County, Florida Refuse Disposal Facilities Plan. This plan included the investigation and development of commercial waste and yard waste recycling programs, land disposal facilities, and waste volume reduction through composting and thermal processing. He served as Quality Assurance Reviewer for modification of the County landfill's leachate collection system, the repair/upgrading of transfer facilities, and directed the implementation of a Class III landfill over landfill areas that had been closed prior to 1985.

Mr. Levin directed yard waste composting, materials recovery facility (MRF) development, and landfill closure projects for Clay County, Florida. For the City of Jacksonville, Mr. Levin directed repermitting efforts for the City's North Landfill, and the permitting, design, and construction services for closure of the City's East Landfill.

For Coastal Recycling Services, Mr. Levin assisted in the implementation of its 1,000 TPD C&D MRF within Duval County. He also has managed permitting and design services for multiple privately-owned C&D disposal facilities within Flagler, Marion, Orange and **Nassau** Counties.



In Marion County, Florida, Mr. Levin directed the assessment of the County's solid waste operations, followed by development of a 5-year/25-year solid waste management plan. He directed preparation of procurement documents for incorporating waste-to-energy as a component of the County's solid waste management program. For the former Newton Landfill, Mr. Levin is directing the assessment of contamination emanating from the waste pile.

Mr. Levin has directed solid waste assignments for Brevard County, Florida. Projects included the examination of expansion alternatives for the Central Disposal Facility, partial closure design and landfill gas management system expansion within the unexpanded Central Landfill, vertical and horizontal expansion and groundwater monitoring/assessment of the Sarno Road Landfill, and the implementation of a mechanism to serve the future disposal needs of the South County Solid Waste Service Area. Privatization of waste disposal operations for this south County area was evaluated in depth, with an RFQ/RFP process utilized to identify those best suited to meet the County's needs. As the County did not elect to haul-out its waste materials, Mr. Levin is currently directing implementation of a new, 3000-acre Greenfield site. For Sarasota County, Florida, Mr. Levin directed diverse solid waste assignments, primarily associated with the now closed Bee Ridge Landfill. These assignments included the biennial update of the water quality monitoring plan, assessment of gradient differential across the slurry wall of the site, investigation of the underperforming Phase III landfill gas collection and flaring system, and preparation of RFQ/RFP documents for operating the new Central Solid Waste Management Center.

For Leon County, Florida, Mr. Levin directed permitting and design services for the County's transfer facility. He directed the permitting (and five years and ten years later, the repermitting) of the Redwood Transfer Station for Englewood Disposal in Southwest Florida. He directed permitting and design of BFI's 400 TPD transfer station in Alachua County, Florida, and its repermitting under subsequent ownership, zoning and implementation efforts for the 600 TPD United Sanitation Facility in Ocala, Florida, and permitting, design and construction efforts for Waste Management's 3000 ton per day transfer facility in Orlando, Florida, and USA Waste's (now called Waste Management) 1000 TPD transfer facility (also in Orlando). He also led permitting services for the Tomoka Recycling transfer station and City of Ormond Beach Transfer Station in Ormond Beach, Florida, and repermitting services for materials recovery facilities in Alachua, Orange, Hillsborough, Sarasota, Collier and Pinellas Counties in Florida.

For the Solid Waste Authority of Palm Beach County, Mr. Levin served as Project Engineer in the development of one of Florida's first lined, Class I landfills, and for development of the State's first lined Class III Landfill in the mid-1980s. He also served as Project Director as the County's Dyer Boulevard Landfill was converted into a regional park. He also directed closure of the City of Boynton Beach Landfill within Palm Beach County. For Broward County, Mr. Levin served as Project Director for the implementation of the Interim Contingency Landfill, a greenfield site, and for closure of the Landfill at Davie, a superfund site.

For Volusia County, Mr. Levin directed the feasibility analysis for implementation of a bioreactor at the Tomoka Farms Road Class I facility. He also directed preparation of a long-range planning document for this facility.

EDUCATION

M.S., Solid Waste and Air Pollution Engineering, Drexel University, 1976

B.S., Engineering, Drexel University, 1974

REGISTRATIONS

Professional Engineer – Alabama, Delaware, Florida, Maryland, North Carolina, Pennsylvania and Virginia

PROFESSIONAL AFFILIATIONS

Solid Waste Association of North America, National Waste & Recycling Association, Hinkley Center for Solid and Hazardous Waste Management, University of Central Florida Industrial Advisory Board.



Ron DeSantis, Governor

Melanie S. Griffin, Secretary



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LEVIN, SAMUEL BERNARD

S2L, INCORPORATED
531 VERSAILLES DRIVE, # 202
MAITLAND FL 32751-4589

LICENSE NUMBER: PE34462

EXPIRATION DATE: FEBRUARY 28, 2025

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OMAR E. SMITH, P.E.
Vice President, Regional Manager
S2L, Incorporated

Mr. Smith has managed major solid waste projects in the public and private sector for over 40 years. His assignments have involved comprehensive services for solid waste management facilities from the procurement of solid waste disposal services to permitting, design, construction and operations of solid waste facilities.

PROJECT EXPERIENCE

Landfill Permitting, Design, and Construction Phase Services

Mr. Smith has served as a Project Manager for numerous landfill projects, examples of which include:

- **Permitting, design, and partial construction services of an 11-acre geosynthetic clay liner (GCL), with geocomposite sideslope closure cap in Nassau County, Florida.**
- **Permitting of a 40-acre synthetic liner cap in Nassau County, Florida.**
- **Retirement of the permit for the Bryceville Landfill, permit modification to reduce costs for the West Nassau and Lofton Creek Landfills.**
- Permitting of a 30-acre Class III Landfill cell and new 3,000 acre solid waste management facility in Brevard County, Florida (Intent to Permit received from FDEP; presently in administrative hearing process).
- Development of a 3000-acre greenfield site for landfilling in Brevard County, Florida.
- Permitting, design, liner construction quality assurance (LCQA), and construction services of an 80-acre synthetic liner cap in Lake County, Florida.
- Permitting, design, LCQA, and construction phase services of a 23-acre GCL sideslope closure at the Central Disposal Facility in Brevard County, Florida.
- Permitting, design, LCQA, and construction services of a 14-acre double composite bottom liner system in Leon County, Florida.
- Permitting, design, LCQA, and construction services of a 7-acre, Subtitle D composite liner in Lake County, Florida.
- Permitting, design, LCQA, and construction services of an 80-acre vertical expansion of the Sarno Road Class III landfill in Brevard County, Florida.
- Design, LCQA, and construction services of a 20-acre composite lined landfill cell in Leon County, Florida.
- Permitting, design and construction services of a 12,000-linear-foot slurry wall system at the Osceola Road Landfill in Seminole County, Florida.
- Design and LCQA for a double-lined landfill for ash residue for the Resource Authority of Sumner County, Tennessee.
- Permitting, design, LCQA, and construction services for a 6-acre composite liner system for an ash residue monofill in Lake County, Florida. Permitting, design, LCQA, and construction services of a 20-acre clay liner closure and geosynthetic stormwater pond for a ballpark end use at the Sanlando Landfill in Seminole County, Florida.

Solid Waste Procurement Documents

Mr. Smith has been involved with a number of project procurements, examples of which include:

- Preparation of Request for Proposal (RFP) documents for the procurement of a Waste-to-Energy and alternative disposal facility in Marion County, Florida.
- Preparation of RFP documents for solid waste collection/recycling center operation services in Marion County, Florida.



- Preparation of Request for Qualification (RFQ) documents for the short-listing of potential proposers to provide solid waste disposal services in South Brevard County, Florida.
- Preparation of procurement documents for the utilization of landfill gas for Seminole and Brevard Counties, and renegotiation of Volusia County's landfill gas utilization agreement.

Financial Assurance Reports and Documentation

- **Nassau County, Florida**
- Osceola County, Florida
- Seminole County, Florida

Landfill Gas Projects

- Design of active landfill gas collection system in:
 - Orange County, Florida Class III Landfill
 - Jacksonville East Landfill in Duval County, Florida
 - I-95 Landfill in Fairfax County, Virginia
- Design and/or construction phase services of landfill gas system repair, expansion, or replacement:
 - **West Nassau Landfill, Nassau County, Florida**
 - Central Landfill, Sarasota, Florida
 - Phase I Rehabilitation, Central Disposal Facility, Brevard County, Florida
 - Phase II, IIC, IID, Central Disposal Facility, Brevard County, Florida
 - Southport Landfill System Maintenance, Osceola County, Florida
- Operation and maintenance assistance for landfill gas systems:
 - **West Nassau Landfill, Nassau County, Florida**
 - Southport Landfill, Osceola County, Florida
 - Osceola Road Landfill in Seminole County, Florida
- Preparation of Title V permit applications and related reports for:
 - Central Disposal Facility, Title V permit application, Brevard County, Florida
 - Central Disposal Facility, Startup, Shutdown, and Malfunction Plan, Brevard County, Florida
 - Osceola Road Landfill, Title V permit application, Seminole County, Florida
 - Title V Permit Renewal for the Central Disposal Facility, Brevard County, Florida
 - U.S. 27 South Landfill, Title V permit application in Leon County, Florida

Mr. Smith has a strong background in computer applications on engineering assignments. He has developed computer programs to aid in the design of sanitary landfills, transfer stations, and other environmental facilities. Additional applications include the assessment of life cycle costs of proposed projects, economic feasibility, monitoring construction progress, and conducting air quality monitoring.

EDUCATION

M.S., Environmental Engineering, Memphis State University, 1979

B.S., Civil Engineering, Memphis State University, 1978

REGISTRATIONS

Professional Engineer - Florida, Georgia, Tennessee

PROFESSIONAL AFFILIATIONS

Solid Waste Association of North America

National Waste & Recycling Association



Ron DeSantis, Governor

Melanie S. Griffin, Secretary



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STATE OF FLORIDA

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SMITH, OMAR EWING III

2071 TOWNE MILL AVE.
CANTON GA 30114

LICENSE NUMBER: PE38358

EXPIRATION DATE: FEBRUARY 28, 2025

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ROBERT E. MACKEY, P.E.
Principal Engineer
S2L, Incorporated

Mr. Mackey has broad-based experience in solid waste, hazardous waste, and leachate management issues. His past and ongoing participation in local, state, and federal research projects has allowed Mr. Mackey to continuously integrate the latest technology into waste containment design, site assessment, or technology review projects. Through his varied background and active role in technical societies, Mr. Mackey has been recognized by his peers as a leader in the waste containment field.

PROJECT EXPERIENCE

Mr. Mackey has served as Principal Engineer for S2Li's services for Orange County, Florida since 2003. These services have spanned multiple contracts, including multiple reselections. Services have included the development and subsequent expansion of the County's Class III landfill, constructed over a previously closed Class I landfill, remediation of a previously installed leachate collection system to add cleanout capabilities, and the upgrade/repair of multiple County transfer facilities.

Mr. Mackey manages all of S2Li's solid waste services for Osceola County. Services have included addressing groundwater contamination at the unlined Bass Road Class I and C&D Disposal facilities, operation of the active landfill gas collection and flaring system at the closed Southport Landfill, and closure permitting, design, and construction services for the Bass Road C&D Disposal Facility.

For Brevard County, Florida, Mr. Mackey served as Principal Engineer on permitting of the County's 3,000-acre Greenfield site along US-192. FDEP permits have been approved for site construction and operation, and the Army Corps of Engineers wetlands-related permit is pending.

For Republic Services of Florida, Mr. Mackey served as Project Manager and Principal Engineer for the permitting and design of its Cedar Trail Class I Landfill in Polk County. Services have included several iterations of cell construction.

Mr. Mackey served as Principal Engineer and Project Manager for the permitting, design and implementation of Waste Management Inc. of Florida's Orlando Transfer Station. This 3,000 TPD, three-bay facility was implemented on a fast-track basis. He served in a similar capacity for USA Waste's 1,000 TPD, two-bay Kaley Street Transfer Station in Orlando that was replaced by Waste Management's facility.

As co-instructor of ASCE's Landfill Design Course, Mr. Mackey instructed students nationwide on the basics of landfill design, with a focus on the use of geosynthetic materials. For many years, Mr. Mackey served as chair of ASTM's subcommittee responsible for the testing of geosynthetic clay liners, with this background assisting in his teaching assignments. He currently serves as a member of ASCE's Body of Knowledge committee, evaluating the adequacy of engineering coursework to prepare engineers for practice.

Mr. Mackey has been the chief investigator for research investigation projects dealing with native soil and geosynthetic barriers, leachate collection systems' long-term capabilities, leachate recycling and landfill mining. His interests in this area include review of biological clogging of geotextile for ASTM, long-term temperature monitoring of landfill geomembranes, participation on a technical advisory panel for leachate recycling and wet cell decomposition of solid waste (bioreactor technology). He has been called upon to assist the United States Environmental Protection Agency to peer review research documents and member on technical advisory committees for local, state, and federal research projects.



Mr. Mackey's assistance has been sought for specific projects, task groups, and committees because of his varied experience and technical knowledge in landfill liner and leachate collection systems. The projects include the development of National Solid Waste Regulations and Standards for the Kingdom of Thailand, preliminary assessment and remediation designs of solid waste disposal sites in Thailand, and assessment of an old liner and leachate collection system for the Delaware Solid Waste Authority's Central Disposal Facility. The assessment of old waste disposal sites in Thailand required Mr. Mackey to develop basic hazardous site assessment criteria, use old investigation technology, and lead the project team in technology transfer and usage of computer modeling.

Mr. Mackey represented United States design engineers of liner systems as part of a United States delegation to Germany's Federal Institute for Material Research and Testing. He is also actively involved on ASTM's D35 Committee as Chairman of D35.04 Subcommittee on Geosynthetic Clay Liners and subtask group leader for various geosynthetic applications. Mr. Mackey is active in ISO's TC221 Committee on Geosynthetics, as Work Group 2 Convener on Terminology, Identification, and Sampling. He has also participated on the technical review or awards committee for the Geosynthetics 1995, 1997, and 2001 Conferences, and taught a waste containment design short course for the Geosynthetics 2003 conference.

Mr. Mackey provides extensive knowledge in the design, construction and operation of landfills in an island environment. He was a Project Engineer on groundwater monitoring, waste management, wetland assessment, and recycling alternative projects for three landfills in the Florida Keys. He served as construction inspector and Liner CQA manager on the construction of a landfill expansion at the Cudjoe Key Landfill. Later as Project Manager, Mr. Mackey was responsible for the design, permitting, and construction of the three landfill closures. Each landfill had limited area in which to perform the closure and unique environmental issues that required consideration during the design phase. For example, the Key Largo Landfill had to consider impact to the adjacent crocodile refuge and a local endangered butterfly area.

EDUCATION

M.S., Environmental Engineering, University of Cincinnati, 1986

B.S., Civil Engineering, University of Evansville, 1979

REGISTRATIONS

Professional Engineer in Delaware, Florida (#40176), Georgia, Louisiana, North Carolina, Ohio, South Carolina, Tennessee, and Virginia

Affiliations

- America Society of Civil Engineers
- National Society of Professional Engineers
- Florida Engineering Society
- ASTM
- International Standards Organization
- Solid Waste Association of North America
- North American Geosynthetics Society
- National Institute of Certification of Engineering Technician (under the auspice of the National Society of Professional Engineers)
- International Geosynthetics Society
- Curriculum Advisory Board, University of Central Florida
- Industrial Fabrics Association International



Ron DeSantis, Governor

Melanie S. Griffin, Secretary



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MACKAY, ROBERT EUGENE

1316 LINDENWOOD LN
WINTER PARK FL 32792-5446

LICENSE NUMBER: PE40176

EXPIRATION DATE: FEBRUARY 28, 2025

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Gregory Brunson, P.E.
Senior Engineer
S2L, Incorporated

He elected to attend the University of Central Florida (UCF) in order to earn his engineering degree and advance his career. As he neared graduation, he began working for a small civil engineering firm based in St. Cloud, Florida. He performed well in his position of intern for the firm, but the firm did not include solid waste engineering among its areas of practice. He became aware of S2Li due to the firm's close relationship with UCF, and with the permission of the St. Cloud firm, interviewed and was selected for the position of intern with S2Li, becoming a full-time associate engineer immediately upon graduation. He earned rapid promotions within S2Li, becoming Senior Engineer upon registration as a Professional Engineer in the State of Florida.

Project Experience and Other Professional Qualifications

Mr. Brunson began his career in solid waste in private industry. Over a ten-year period, he held positions in residential collections, and landfill and transfer station operations, culminating this early part of his career as operations manager for the St. Cloud Transfer Station in Osceola County, Florida.

In the past 9 years as an employee of S2Li, Mr. Brunson has been involved in preparing solid waste facility designs, permit applications, engineering cost estimates, annual compliance reporting, and landfill gas system operation and maintenance work for multiple solid waste management facilities.

Mr. Brunson prepared the calculations related to the performance of the leachate collection system for Cell 5 within Charleston County's Bees Ferry Landfill. He performed the modelling and calculations for the design of the bottom liner and leachate collection system for Cell 2 at the Brevard County Central Disposal Facility.

He has served as senior engineer on the design of the landfill gas system expansions for Orange County's Class III Landfill and Brevard County's Central Disposal Facility Class I South Landfill, including the layout of the LFG piping, LFG flow modeling and analysis, construction plans and details, design reporting for the project, and the associated permit modification. Additionally, Mr. Brunson assisted in the design of the LFG system expansion at the Osceola Road landfill in Seminole County by modeling the LFG flow and assisting with the creation of the construction drawings and design reporting.

Mr. Brunson has prepared permit applications for the Orange County Class III landfill and Mid Florida Materials lined Class III landfill in Orange County; the Cedar Trail Class I landfill in Polk County; the Class III US 192 landfill and Class I Central Disposal facilities in Brevard County, the Fort Walton Beach transfer station in Okaloosa County; the Blasius Road transfer station in Jacksonville; the Plymouth Avenue landfill in Volusia County; and the Osceola Road Landfill in Seminole County.

Mr. Brunson has provided LFG system permitting, operation and maintenance services in Nassau County, Osceola County, and Seminole County, including monthly and quarterly compliance readings, LFG system repairs, and flare station maintenance and repair. Additionally, he has provided operational instruction to the Lake County Solid Waste Department.

Mr. Brunson uses AutoCAD Civil 3D in preparing engineering designs. He is adept at using LFG composition equipment in tuning gas extraction wells and performing surface emission monitoring, and in using proprietary software in maintaining LFG records.

Education: BS Environmental Engineering, 2015

Registration: Professional Engineer in the State of Florida



Ron DeSantis, Governor

Melanie S. Griffin, Secretary



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BRUNSON, GREGORY MICHAEL

2050 NEPTUNE ROAD
KISSIMMEE FL 34744

LICENSE NUMBER: PE89377

EXPIRATION DATE: FEBRUARY 28, 2025

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CLINT PLETZER, PE
Civil Design Manager, Transportation



Over the past 20 years, Clint has provided professional engineering services on more than 35 roadway design projects. As a Roadway Engineer, Clint has the experience to facilitate and coordinate complex transportation projects between multiple stakeholders and interest groups at local, county, state and federal levels. He has demonstrated this ability on multiple occasions to successfully complete transportation assignments of various sizes and complexity for a variety of government clients including but not limited to the Florida Department of Transportation (FDOT), the Greater Orlando Aviation Authority (GOAA), Orange County, Seminole County and the Cities of Maitland, Orlando and Sanford. Many of Clint's assignments have required extensive design, relocation and coordination with multiple utility authorities and providers some of which include Florida Gas, Seminole County Water, Utilities, Inc. and numerous telecommunication companies. He is experienced in horizontal and vertical alignments utilizing GEOPAK, utility coordination and adjustments, maintenance of traffic, cost estimates, CADD construction drawing development and FDOT plan preparation.

Mr. Pletzer has recent experience with Orange County Solid Waste projects. He served as Project Manager on the Landfill Parking Area Pavement Rehabilitation project and the Landfill Class III Access Road project at the Young Pine Road facility. He also served as Project Manager on the Landfill Trailer Staging Area Pavement Improvements project for Seminole County. Some of his additional experience is provided below.

Relevant Project Experience:

VOLUSIA COUNTY CITIZENS CONVENIENCE CENTER

Port Orange, Florida

Design Engineer

The project included construction of a multi-bay citizens convenience center on an elevated concrete pad with ramp access. Pad design included sloping to direct stormwater runoff to channels discharging to an adjacent treatment pond. Services included permitting and design of stormwater management improvements.

CORPORATE BOULEVARD

Orange County, FL

Project Manager

This project consisted of an additional eastbound lane for the intersection of Corporate Boulevard/Gemini Boulevard and SR 434 (Alafaya Trail) near the campus of the University of Central Florida. The roadway widening required the design of modifications to the existing traffic signals. Synchro software was used to model the intersection improvements and determine the optimal level-of-service and lane configuration within the limited existing right-of-way.

PINE HILLS TRAIL

Orange County, FL

Project Manager

This project consisted of engineering design for the Pine Hills Multi-Use Trail from Alhambra Drive to Silver Star Road. It also included a multi-use trail from Gordon Barnett Park to the proposed Pine Hills Trail along Dolores Drive. The project included design of a 2-lane trailhead roadway with turnaround/cul-de-sac at the end, and parking on both sides as well as two new traffic signals on Silver Star Road and Pine Hills Road for mid-block crossings of the trail.

Professional Development

Education:

BS Civil Engineering, 2002
University of Central Florida

Professional Registrations:

Professional Engineer, FL

Years Experience:

20



Ron DeSantis, Governor

Melanie S. Griffin, Secretary



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STATE OF FLORIDA

BOARD OF PROFESSIONAL ENGINEERS

THE PROFESSIONAL ENGINEER HEREIN IS LICENSED UNDER THE
PROVISIONS OF CHAPTER 471, FLORIDA STATUTES

PLETZER, CLINTON JAMES

2430 BROKEN ELM PLACE
OVIEDO FL 32766

LICENSE NUMBER: PE69221

EXPIRATION DATE: FEBRUARY 28, 2025

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THE COLINAS GROUP, INC.

HYDROGEOLOGISTS & ENGINEERS

RICHARD L. POTTS, JR., P.G.
THE COLINAS GROUP, INC.

TITLE: PRINCIPAL HYDROGEOLOGIST

EDUCATION: B.A. Environmental Studies, Rollins College, Winter Park, FL
B.S. Program in Geology, University of South Florida, Tampa, FL

PROFESSIONAL EXPERIENCE: 40 years (Florida, Georgia, South Carolina, Kentucky, Virginia)

REGISTRATIONS: Licensed Professional Geologist, Florida Registration No. PG1113

RELEVANT EXPERIENCE :

- Water quality monitoring and FDEP compliance reporting for active Class I solid waste management facility and two closed landfills, Seminole County Solid Waste Division, Seminole County, Florida.
- Preparation and implementation of FDEP Preliminary Contamination Assessment Plan/Report for elevated nitrate nitrogen levels in groundwater at a closed Class I landfill, Sumter County Solid Waste Department, Sumter County, Florida.
- Hydrogeologic evaluation, site suitability assessment, Groundwater Monitoring Plan design and FDEP 62-701, F.A.C. permitting for new Hernando County Class I municipal landfill, Hernando County, Florida.
- Preparation of MPIS modification for Nassau County at two sites, and finding of "Stable" relative to water quality at a third closed Nassau County site.
- Preparation of procurement documents for waste quality sampling, analysis and reporting for Nassau County, Florida.
- FDEP Liner equivalency analysis, leachate collection system analysis, groundwater monitoring plan development and permitting for existing Class I Seminole County Osceola Road Landfill, Seminole County, Florida.
- Planning and completion of Chapter 62-780, F.A.C. Site Assessment and Chapter 62-701, F.A.C. Evaluation Monitoring actions for closed Bass Road Class I landfill, Osceola County Solid Waste Department, Osceola County, Florida.
- Quarterly groundwater quality monitoring and FDEP reporting for closed Class I landfill, Sumter County Solid Waste Department, Sumter County, Florida.
- Planning and completion of Chapter 62-780, F.A.C. Site Assessment and Chapter 62-701, F.A.C. Evaluation Monitoring actions for closed Sanlando Landfill, Seminole County Solid Waste Division, Seminole County, Florida.
- Hydrogeologic evaluation, site suitability assessment and preparation of Groundwater Monitoring Plan and FDEP 62-701, FAC permitting documents for expansion of Hernando County Northwest Solid Waste Facility, Brooksville, Florida.
- Water quality monitoring and FDEP reporting for active privately-owned C&D landfill, Self-Kirton C&D Landfill, Volusia County, Florida.

- Evaluation of alternative leachate quality control and treatment technologies to address elevated arsenic levels in leachate, Seminole County Osceola Road Class I Landfill, Geneva, Florida
- Preparation of permit applications to the FDEP and Seminole County Planning and Development Department for expansion of landfill cover borrow pit, Seminole County Osceola Road Class I Landfill, Geneva, Florida.
- Site evaluation and preparation of permitting documents for development of a treated leachate disposal facility for the Volusia County Tomoka Farms Road Class I Landfill, Port Orange, Florida.
- Semi-annual water quality monitoring and FDEP reporting for closed Southport Class I Landfill, Osceola County Solid Waste Department, Osceola County, Florida.
- Semi-annual water quality monitoring and FDEP reporting for closed Bass Road Class I Landfill, Osceola County Solid Waste Department, Osceola County, Florida.
- Development of a new groundwater monitoring plan for FDEP closure permit, closed Class III landfill cell, Orange County Young Pine Landfill, Orange County, Florida.
- Evaluation of waste disposal site impacts on a municipal water supply wellfield for Orange County Public Utilities, Plymouth, Florida.
- Design and permitting of a Groundwater Monitoring Program for Hercules Chemical Co., a large chemical manufacturer in Hopewell, Virginia.
- Groundwater Monitoring Plan modification, permitting and installation of new monitoring wells for WMIF Keene Road Landfill, Orange County, Florida.

PROFESSIONAL AFFILIATIONS:

Florida Association of Professional Geologists
American Institute of Professional Geologists

PUBLICATIONS:

Potts, R.L., 1995, "Aquifer Storage and Recovery (ASR) in Florida", Florida Bar Association, in proceedings of the Environmental and Land Use Section, Tallahassee, Florida.

Potts, R.L., 1991, "Use of Borehole Geophysics for Stratigraphic Horizon Delineation at the Osceola Road Class I Landfill, Seminole County, Florida", Assoc. of Groundwater Scientists and Engineers, National Groundwater Association, in proceedings of Focus Eastern Conference, Portland, Maine.

Potts, R.L., and Levin, S.B., 1988, "Analysis of In-Situ Liner Equivalency, Osceola Road Landfill, Seminole County, Florida", American Institute of Hydrology, in proceedings of Conference on Advances in Hydrology, Tampa, Florida, November, 1988.

Miller, H.D., and Potts, R.L., 1982, "Large Scale Operations Management Test of Use of the White Amur for Control of Problem Aquatic Plants, Volume VII-The Water and Sediment Quality of Lake Conway, Florida": U.S. Army Corps of Engineers, Waterways Experiment Station, Vicksburg, Mississippi.



Ron DeSantis, Governor

Melanie S. Griffin, Secretary



**STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION**

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POTTS, RICHARD LEON JR

989 STONEWOOD LANE
MAITLAND FL 327513254

LICENSE NUMBER: PG1113

EXPIRATION DATE: JULY 31, 2024

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Sara Greivell, President & CEO, Grove Scientific & Engineering Company

6140 Edgewater Drive, Suite F, Orlando FL 32810 Phone:407-298-2282 Email: sara@grovescientific.com

Project Role: Project Manager Total Years Experience: 13 Years with Grove: 13

Education: AS, Environmental Pollution Control Technology, 2003; BS Environmental Science, 2005

Professional Certification: Certified visible emissions evaluator

Other Professional Experience

As an environmental scientist for Grove Scientific & Engineering Company, Ms. Greivell's main focus is air pollution source permitting and consulting. She works to obtain Title V, non-Title V, and Air General Permits for clients. This includes extensive rule review to determine all applicable state and federal rules and regulations for a wide variety of air pollution sources. Ms. Greivell assists clients in maintaining, renewing and all related reporting and record keeping requirements to ensure the client is in compliance with their air permit at all times. Some recent examples of extensive rule review include:

For Nassau County, Ms. Greivell prepared Title V permit modification and renewal application. She prepares the semi-annual and annual compliance statements along with NSPS reports, SSM reports, greenhouse gas reports and annual operating reports. She conducts the annual visible emissions test on the flare and periodic surface methane monitoring.

For Volusia County, Ms. Greivell prepared Title V permit renewal application and subsequent Title V modification application.

For Seminole County, Ms. Greivell prepared Title V permit renewal.

For Lake County, Ms. Greivell prepared Title V permit renewal.

kessler consulting inc.

innovative waste solutions

Mitch Kessler President and Project Director

Mitch Kessler has 39 years of solid waste experience and has managed or directed more than 200 projects. His legal training and broad background in solid waste management and business make him a Project Director who is an industry leader with the history and experience to deliver results for our clients.

Mitch is a nationally recognized expert in the procurement and operations of solid waste collection systems and materials recovery programs and facilities, and is especially knowledgeable in collection and market development issues as they relate to the economic viability of solid waste and recycling programs.

Mitch is former President of the Florida Sunshine Chapter of the Solid Waste Association of North America (SWANA). He also serves as an instructor for the Recycling Certification Course sponsored by SWANA, and is a member of the SWANA committee that developed the Manager of Composting Operations Certification Course.

Because of Mitch's special knowledge of state and national solid waste management issues, he has held a number of leadership positions in the field. In addition to the affiliations and leadership roles listed in the sidebar, Mitch served on the Technical Advisory Committee (TAC) for the development of Florida's Registration for Recyclers Rule. He also served as a principal investigator for an FDEP-sponsored food waste diversion study conducted by the University of Florida's Institute of Food and Agricultural Sciences Center for Biomass Programs and FORA.

Formal Education

University of New Hampshire, NH
JD, Environmental Law, 1984

Purdue University, IN
MA, American Studies, 1981
BS, Management, 1979

State University of New York, NY
AAS, Horticulture, 1976

Supplemental Education

Lead SWANA Certified Recycling
Manager

SWANA Certified Composting
Systems Manager

SWANA Certified Instructor for
Recycling, Collection & Composting,
Ongoing

Affiliations & Leadership Roles

Solid Waste Association of North
America, Florida Sunshine Chapter,
Board of Directors (2005-current);
Current President

Recipient of Chapter's Distinguished
Service Award – November 2008

Recycle Florida Today, Inc. (RFT),
Chair (4 years), Board of Directors (8
years)

Florida Organics Recyclers
Association (FORA), founding Chair

National Recycling Coalition (NRC),
Florida representative for RFT

United States Composting Council

Solid Waste Association of North
America (SWANA)

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innovative waste solutions

Mitch Kessler (cont.)

As Project Director, Mitch is responsible for project success and client satisfaction. A few of the recent projects that he directed are summarized below.

- ❑ **Solid Waste Management Alternatives, Phase I, Charleston County, SC**
Mitch designed and managed an independent audit of the county's waste stream and solid waste management operations. The audit included an in-depth analysis of program costs and systems including collection, waste-to-energy and landfill disposal, compost, and MRF operations. Mitch directed research into emerging alternative technologies. Based on audit results, program and system recommendations were developed for an efficient and cost-effective integrated solid waste management program.
- ❑ **Strategic Plan to Increase Curbside Recycling, Hillsborough County, FL**
Mitch led a project to develop a plan to increase participation in the County's residential curbside recycling program. Project tasks included evaluating the county's existing curbside recycling statistics, comparing these statistics with other Florida jurisdictions, and developing recommendations to facilitate program improvements.
- ❑ **Solid Waste and Recycling Technical Assistance, Manatee County, FL**
Since 2000, Mitch has maintained a strong and productive relationship with Manatee County. He has directed a large portfolio of work with the county, including waste reduction, commercial fuel index assistance, commercial recycling presentations and recommendations, full-cost accounting models, collection service procurement, and FDEP annual reporting.
- ❑ **Processing Procurement Assistance, Sarasota County, FL**
Mitch is currently overseeing a project providing assistance to the County with procuring recyclables processing services. The county is currently soliciting proposals for the expansion of its recycling program in an effort to collect materials in a single stream format.

Mitch has received the following industry awards:

- **Professional Achievement Award**, 2012, Solid Waste Association of North America
- **Distinguished Service Award**, 2008, Solid Waste Association of North America
- **George Kirkpatrick Lifetime Commitment Award**, 2006, Recycle Florida Today
- **Outstanding Contribution Award**, 2002, Solid Waste Association of North America
- **Exceptional Leadership Award**, 1997, Florida Organics Recyclers Association

Prior Employment History

- **Organics Recycling Incorporated**, Chief Operating Officer and Director of Business Development
- **Resource Integration System**, Vice President and Director of Consulting Services
- **Malcolm Pirnie, Inc.**, Waste Reduction and Recycling Specialist

PRW Group, LLC

PLANNING • DESIGN • WATER • WASTEWATER • SOLID WASTE • LEACHATE • UTILITY MANAGEMENT

RICHARD D. WILSON, P.E.

Mr. Wilson has over 36 years of experience in planning, permitting, design and construction of water, wastewater, leachate management, and solid waste facilities.

PROFILE

- Responsible for the planning, design and permitting of various leachate treatment and handling projects for both Class I and Class III landfills, as well as the planning and design of advanced wastewater treatment facilities throughout the State of Florida.
- Prior to forming PRW Group, LLC, Manager of Engineering for Orange County Utilities, responsible for a \$100 million Capital Improvement Program for water, wastewater and solid waste projects.
- Broad technical experience in management of large projects and programs, ranging from biological nutrient removal processes, wastewater residuals management, and the implementation of public access reclaimed water programs to storm water management, transmission and distribution projects, leachate and industrial water treatment systems, and design/build projects.

EDUCATION

- B.S. University of Florida, 1985

REGISTRATION

- Professional Engineer No. 42807, 1989

REPRESENTATIVE SOLID WASTE/LEACHATE MANAGEMENT PROJECTS

- ***Volusia County Solid Waste Department*** – Planning, design and construction management services for a 45,000 gpd Class I leachate treatment facility.
- ***Republic Services*** – Planning, design and construction management services for a leachate pumping system and transmission main to discharge Class I and III leachate to a City WWTP.
- ***Brevard County Solid Waste*** – Evaluation of leachate characteristics from a Class III landfill; evaluation of leachate pretreatment, pumping, storage and transportation options; and preliminary design of pumping and handling facilities.
- ***Nassau County*** – Blower replacement for West Nassau Landfill landfill gas system.
- ***Montgomery County (Maryland) Leachate Treatment Facility*** – Evaluation of treatment processes and preliminary design of a 30,000-gallon-per-day (gpd) leachate treatment facility.
- ***City of Orlando*** - Preparation of recycling facility master plan.
- ***Orange County Solid Waste Integrated Resources Plan*** – Development of a solid waste integrated resources plan for C&D and Class III waste.
- ***McLeod Road Transfer Station Leachate Handling System*** – Design and construction of a leachate storage and truck loading pumping station.
- ***Orange County Regional Biosolids Program Management*** – Multiple projects including investigations/full-scale pilot study for blending biosolids and ash to develop an alternative cover material, the evaluation of co-disposal of biosolids and municipal solid waste related to operational impacts, slope stability, gas production and leachate quality, and development of best practices for co-disposal.

Richard D. Wilson, P.E.

- Additional solid waste projects include permitting and design of solid waste incineration (volume reduction) facilities, design of leachate storage, transmission and pumping facilities, and the design of lined containment ponds.

REPRESENTATIVE WATER AND WASTEWATER PROJECTS

- **Orange County, South Water Reclamation Facility Phase 4A and 4B Design/Build.** Expansion from 30 to 43.5 mgd. Services also included development/implementation of facility startup manual/procedures.
- **Polk County, Holly Hill Water and Reclaimed Water Mains.** Design and permitting of a 24-inch water main and a 16 inch reclaimed water main. Project involves a directional drill crossing of SR 27. Permitting services include FDEP and FDOT permits.
- **South Central Regional Wastewater Treatment and Disposal Board, Reclaimed Water Feasibility Study and Design, Delray Beach, Florida.** Responsible for the overall implementation of public access reuse program including reclaimed water pricing, user agreements and operational requirements. Design included 4 mgd denitrification filters (re-rated to 7.5) and over 5 miles of transmission main ranging from 8 to 36-inch.
- **New Smyrna Beach, 4-mgd Reuse System.** Planning, design, and construction of a shallow bed reclaimed water treatment system. Project included filtration system evaluation, retrofitting existing chlorine contact basin into filter cells, and design of filtration, chlorine contact, and pumping facilities.
- **University of Florida, Advanced Waste Treatment Facility Design.** Planning, permitting and design of a new 3-mgd advanced waste treatment (AWT) facility utilizing the Biondipho (Kruger) biological nutrient removal process, spiral-blade clarifiers, filters, reclaimed water storage and pumping and biosolids handling systems.
- **City of Orlando, Conserv 1 Flow Diversion Evaluation.** Comprehensive evaluation of alternatives to handle an ultimate wastewater flow of 15 mgd from the Conserv 1 service area. The flow diversion options included the evaluation of approximately 30 pumping stations and 10 miles of transmission system. Flow diversion through a combination of pumping station upgrades and construction of a new force main was recommended.
- **Miami-Dade Water and Sewer Department, Assessment of Operations and Efficiency Optimization of Wastewater Collection System.** Study to identify streamlined business approaches and operational methods to increase the overall efficiency of WASD's wastewater collection system. Using potential cost savings, implementation costs, payback period, and other socio-political considerations, the efficiency opportunities were identified and prioritized.
- **City of Orlando's, 40-mgd Iron Bridge WPCF, Design of a High-Rate Anaerobic Digestion Facility.** Significant features include two-stage process, gas collection, provision for switch control, a computerized control system, high intensity draft tube mixing, and methane gas utilization.
- **City of Orlando, Narcoossee Road Pump Station.** As part of an FDOT road widening project planning, permitting, design and construction administration for a new triplex wastewater pump station. The triplex submersible pumping station included variable frequency drives (VFDs), emergency generator and fuel storage, above grade pumping and valves, SCADA system and a concrete block wall and provisions for a biofilter odor control system.

PUBLICATIONS/PRESENTATIONS

- Benchmarking to Achieve Competitive Utility Performance
- Reuse in Dade County- A Balance of Regulatory and Environmental Constraints Operational
- Criteria as an Alternate Approach to Compliance with Wastewater Disinfection Standards



Ron DeSantis, Governor

Melanie S. Griffin, Secretary



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WILSON, RICHARD D.

17337 KENNEDY DRIVE
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EXPIRATION DATE: FEBRUARY 28, 2025

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SMITH SURVEYING GROUP

*Certified Jacksonville Small and Emerging Business (JSEB) Vendor for the City of Jacksonville, JEA, and JaxPort.
Certified LSBE/Micro LSBE for JTA*



- Areas of Expertise
-
- *MHWL Surveys*
- *GPS Static & Kinetic*
- *Civil Engineering Design Surveys*
- *Construction Layout/As-Built Services*
- *ALTA/NSPS Boundary Surveys*
- *Large Acreage Boundary*
- *Mapping Legal Description Preparation*
- *Landfill Construction*
- *Wetland Jurisdictional Line*

Thomas J. Smith

Florida Registered Professional Surveyor and Mapper, License Number 6500
President
Jacksonville, Florida

Mr. Smith has more than 38 years of progressive experience in land surveying, civil engineering, land planning, and construction support services for public infrastructure and private development. He has been an integral part of several large planned community developments in Northeast Florida in the past. He is an active member of Knights of Columbus.

Relevant Projects

- **COJ Duval Road – R/W Mapping & Route Surveying**
Land Surveying, topographic and route survey for engineering design for potential widening of Duval Road to 5 lanes from I-295 to Dunn Avenue. Right of way mapping to include R/W determination and legal description preparation. Wetland delineation and offsite pond topographic surveying. R/W takins were also being determined. Current Job
- **COJ Riverplace Boulevard Bicycle and Pedestrian Improvement Road Diet**
Construction Surveying and As-Built. Items included Slimmer Traffic Lanes in Exchange for Protected Bike Paths, Off-Street Parking, Wider Sidewalks, Built-In Bus Stops and Upgraded Landscaping
- **JEA Harts Road Force Main Route Survey, Nassau County, FL**
Route Survey of 11,000 LF Consisting of Full Design Topographic, Tree, Wetlands and Boundary Survey for Design of Force Main
- **COJ Adams/Forsyth 2-Way Mobility**
Land Surveying, R/W Establishment, R/W Mapping, Topographic and SUE location
- **COJ Park Street Road Diet – R/W Mapping and Route Survey**
Land Surveying, R/W Establishment, R/W Mapping, and Legal Description Preparation
- **JEA, Arcadis**
Project Surveying for Design Topographic, SUE Locations, Submerged Land Leases and GIS Collection of Facilities, Five Year Contract
- **COJ Willow Branch Park**
Providing Boundary, Topographic and Tree Survey for New Design Canal Refurbishment of the Existing 15 Acre Park Site.



Florida Department of Agriculture and Consumer Services
Division of Consumer Services
Board of Professional Surveyors and Mappers
2005 Apalachee Pkway Tallahassee, Florida 32399-6500
800HELPFLA(435-7352) or (850) 488-2221

January 12, 2023

THOMAS J SMITH
179 WINDLEY DR
SAINT AUGUSTINE, FL 32092-0044

SUBJECT: Professional Surveyor and Mapper License # LS6500

Your application / renewal as a professional surveyor and mapper as required by Chapter 472, Florida Statutes, has been received and processed.

The license appears below and is valid through February 28, 2025.

You are required to keep your information with the Board current. Please visit our website at www.800helpfla.com/psm to create your online account. If you have already created your online account, you can use the website to maintain your license. You can also find other valuable information on the website.

If you have any questions, please do not hesitate to call the Division of Consumer Services, Board of Professional Surveyors and Mappers at 800-435-7352 or 850-488-2221.

Detach Here



**Florida Department of Agriculture
and Consumer Services
Board of Professional Surveyors
and Mappers**

LS6500

**Professional Surveyor and Mapper
THOMAS J SMITH**

IS LICENSED under the provisions of Ch. 472 FS
Expiration date: February 28, 2025

Detach Here



Florida Department of Agriculture and Consumer Services
Division of Consumer Services
Board of Professional Surveyors and Mappers
2005 Apalachee Pkway Tallahassee, Florida 32399-6500

License No.: **LS6500**

Expiration Date February 28, 2025

Professional Surveyor and Mapper License

Under the provisions of Chapter 472, Florida Statutes

**THOMAS J SMITH
179 WINDLEY DR
SAINT AUGUSTINE, FL 32092-0044**

**WILTON SIMPSON
COMMISSIONER OF AGRICULTURE**

SULLIVAN ENVIRONMENTAL

4448 13th LN NE, ST. PETERSBURG, FL 33731 • 813-210-1295 • john@sullivanenv.com

Name: John Sullivan
Title and Years with the Firm: President 14
Education: B.S., Environmental Science and Policy
Years of related experience: 22
Registrations/Licensing: N/A

Experience Summary

Mr. Sullivan's major project experience includes the following:

- **West Nassau Landfill, Nassau County, Florida – Assist S2L, Incorporated in the maintenance of the landfill gas collection and flaring system. Installation of replacement vertical extraction wells.**
- East Duval County Sanitary Landfill, City of Jacksonville, Jacksonville, Florida – manage and participate in the monthly monitoring of landfill gas (LFG) wells, annual surface emissions, flare and wellfield maintenance, and Title V reporting. (2010 – current)
- North Duval County Sanitary Landfill, City of Jacksonville, Jacksonville, Florida – manage and participate in the monthly monitoring of LFG wells, annual surface emissions, flare and wellfield maintenance, and Title V reporting. (2010 – current)
- Osceola Road Landfill, Seminole County, Florida – Assist S2L, Incorporated in the maintenance and repair of the wellfield and flare
- Pecan Row Landfill, Valdosta, Georgia – manage and participate in the installation of header, laterals, pneumatic pumps, LFG wells, radio telemetry system maintenance, monthly monitoring of LFG wells, and quarterly surface emissions monitoring. (2006 – current)
- Baseline Landfill, Ocala, Florida – manage and participate in the installation/repair of LFG extraction wells, header, laterals, knock out sumps, pneumatic pumps, flare upgrades, and gas lines to a LFG to energy facility. Balance the LFG wellfield to achieve 50% methane and less than 1% oxygen needed for power generation. (2007 – current)
- Zemel Road Landfill, Port Charlotte, Florida – performed monthly monitoring of LFG wells. Raised wells and replaced damaged header and laterals as needed. (2013 – 2014)
- Sun Country Landfill, Riverview, Florida – installed radio telemetry system to turn off all pump stations if high alarm is triggered at the leachate storage tank. (2014)
- Southeast County Landfill, Hillsborough County, Florida – repaired/refurbished two passive flares and returned them to normal operation. Troubleshoot and repaired side slope riser pumps and control panels. Repaired secondary containment liner by extrusion welding. (2006 and 2015)
- Turkey Trot Landfill, Citronelle, Alabama – installed one EPG control panel and side slope riser pump. (2013)
- Evergreen Landfill, Valdosta, Georgia – installed two EPG control panels and side slope riser pumps (2013 – 2014)
- Wolf Creek Landfill, Dry Branch, Georgia – installed one EPG control panel and side slope riser pump (2014)
- WCA Desoto Landfill, Arcadia, Florida – installed one EPG control panel and side slope riser pump (2014)
- Sunbeam Landfill, Jacksonville, Florida – managed and participated in the installation of header, laterals, solar pumps, and performed monthly LFG monitoring. (2000 – 2002 and 2009)
- Hillsborough Heights/Taylor Road Landfill, Hillsborough County, Florida – managed and participated during quarterly landfill gas LFG sampling events. (2000 – 2006)

- Volusia County Landfill, Daytona, Florida – managed and participated in the installation/repair of header, laterals, pneumatic pumps, and performed monthly and quarterly LFG monitoring. Balanced the LFG wellfield to achieve 50% methane and less than 1% oxygen needed for power generation. (2000 – 2004)
- Medley Landfill, Medley, Florida – managed and participated in the installation of header, laterals, LFG wells, horizontal collectors, flare station, electric, solar, and pneumatic pumps, and performed monthly and quarterly LFG Monitoring. Managed and operated a leachate pretreatment plant that treated 50,000 gallons per day. (1998 – 2004)
- Okeechobee Landfill, Okeechobee, Florida – performed construction oversight during LFG well, header, and lateral installation. Managed and performed supplemental health and safety monitoring during landfill construction performed by another consultant. (2006)
- Orange County Landfill, Orlando, Florida – managed and participated in the installation of header, laterals, LFG wells, horizontal collectors, flare station, pneumatic pumps, and performed monthly and quarterly LFG Monitoring. (2000 – 2006)
- Naples Landfill – managed and participated in the installation of header, laterals, LFG wells, horizontal collectors, flare station, electric, solar, and pneumatic pumps, and performed monthly and quarterly LFG Monitoring. (2000 – 2006)

State of Florida

Department of State

I certify from the records of this office that S2L, INCORPORATED is a corporation organized under the laws of the State of Florida, filed on March 25, 1997.


The document number of this corporation is P97000026905.

I further certify that said corporation has paid all fees due this office through December 31, 2023, that its most recent annual report/uniform business report was filed on January 24, 2023, and that its status is active.

I further certify that said corporation has not filed Articles of Dissolution.

*Given under my hand and the
Great Seal of the State of Florida
at Tallahassee, the Capital, this
the Twenty-fourth day of January,
2023*




Secretary of State

Tracking Number: 0106992134CC

To authenticate this certificate, visit the following site, enter this number, and then follow the instructions displayed.

<https://services.sunbiz.org/Filings/CertificateOfStatus/CertificateAuthentication>



EXHIBIT "C"

Proposed Loaded Billing Rates for NC23-056-RFQ Services Provided by S2Li January 2024

Contract Position	Hourly Rates
Project Director/Principal-in-Charge	\$295
Senior Project Manager	\$254
Principal Engineer	\$204
Senior Engineer	\$179
Project Engineer	\$129
Office Manager	\$116
Associate Engineer/CADD	\$ 95
Field Technician	\$ 90

1. Billing rate based on applying a 12% profit to S2Li's breakeven multiplier, plus 2.6% for expenses.
2. Rates include typical expenses such as reproduction, travel costs (except for field vehicle), lodging, and printing. Any other extraordinary direct expenses shall be negotiated on a case-by-case basis and will be identified in the Work proposal.
3. Subconsultant costs and parts purchased on the County's behalf will be billed as pass-through costs with no profit or markup added by S2Li in addition to actual costs.
4. Field vehicles (truck) will be billed at \$120/day.

H:\S2Li Projects\Nassau County\Contracts and Work Authorizations\NC23-056 Contract and Work Authorizations\Contract Negotiations\S2Li Proposed Rates for NC23-056-RFQ 1-4-24.rtf



AVCON, INC.
Engineers & Planners

5555 E. Michigan Street, Suite 200
 Orlando, Florida 32822
 Phone: (407) 599-1122
 Fax: (407) 599-1133
 www.avconinc.com

S2L, Inc. / Nassau County
Continuing Professional Engineering Services Contract Support
January 3, 2024

Personnel Classification	Billing Rate ¹
Principal	\$289.00
QC Reviewer	\$272.00
Senior Project Manager	\$225.00
Project Manager	\$190.00
Senior Engineer	\$160.00
Project Engineer/Designer	\$105.00
Senior CADD Designer	\$98.00
Senior Construction Manager	\$160.00
Construction Inspector	\$92.00
CADD Technician	\$80.00
Administrative/Clerical	\$58.00

¹ Billing Rate includes typical expenses such as mileage, reproduction and communication costs.

AVCON, INC.

Rick V. Baldocchi, P.E.
 Vice President

THE COLINAS GROUP, INC.

Mr. Omar Smith, P.E.
S2L, Inc.
529 Versailles Drive, Suite 202
Maitland, FL 32751

December 20, 2023

Subj: Professional Hydrogeologic Services Fee Schedule
S2L, Inc - Nassau County Continuing Contract for Engineering Services

Dear Mr. Levin:

The Colinas Group, Inc. (TCG) herein presents our proposed Professional Services Fee Schedule for hydrogeologic services that may be required from time to time in support of specific projects assigned to S2Li by Nassau County:

**S2L, Inc. / Nassau County
Continuing Professional Engineering Services Contract Support
December 20, 2023**

Personnel Classification	Billing ^{1/} Rate
Principal Consultant/Project Manager (PG)	\$ 165.60
Sr. Hydrogeologist (PG)	\$ 132.50
Staff Hydrogeologist	\$ 107.60
Environmental Field Technician	\$ 93.35 ^{2/}
Draftsperson/CAD Operator	\$ 68.20
Clerk/Word Processor	\$ 45.50

^{1/}. Billing Rates include typical expenses such as mileage, reproduction and communication costs.

^{2/}. Billing Rate includes mileage, field-testing instrument rental and water sampling supplies.

^{3/}. As required, on a project-by-project basis, specialized field investigation equipment rental and subcontract drilling and well construction services will be billed as pass through costs with no profit or other fees added to actual cost.

The above billing rates will remain in force throughout the duration of S2Li's contract term with Nassau County.

Very truly yours,
THE COLINAS GROUP, INC.



Richard L. Potts, Jr., P.G.
Principal Consultant
FL P.G. Reg. No.1113



Jacksonville Office
 12574 Flagler Center Blvd., Suite 202
 Jacksonville, FL 32258

T 904.363.1110
 F 904.363.1115

December 18, 2023

Project R230991.00

**Loaded Labor Rates for Professional Services
 Nassau County Solid Waste
 Nassau County, Florida**

Dear Mr. Smith:

Per your request, GAI Consultants, Inc. (GAI) is submitting the below proposed hourly rates for the Nassau County Solid Waste Continuing Services project for your consideration.

Community Civil Engineering Rate Schedule

Rates in the below table are "loaded" hourly rates and include overhead, mileage, meals, printing, communication, and benefits per hourly unit rate.

Principal	\$400.00
Senior Director	\$385.00
Director	\$330.00
Senior Engineering Manager	\$290.00
Engineering Manager	\$275.00
Senior Engineer	\$245.00
Project Manager	\$230.00
Engineer	\$195.00
Senior Designer	\$175.00
Lead Designer	\$165.00
Engineer Intern	\$150.00
Designer	\$115.00
CAD Operator	\$110.00
Administrative Assistant 2	\$95.00
Administrative Assistant 1	\$85.00

Please do not hesitate to contact me at 904.903.2848 if you have any questions or wish to discuss.

Sincerely,

GAI Consultants, Inc.

Rebecca H. Bray, PE
 Senior Engineering Manager

Fee Quotation Proposal

Re: Nassua County Bid #NC19-001

As requested, the following is our information regarding overhead multipliers and personnel hourly rates for projects with Nassua County; These are the determined rates for Grove Scientific & Engineering Company that is standard proposals for any and all government entities:

RATE SCHEDULE

LABOR

BILLABLE

Senior Scientist/Principal	\$126.57
Senior Engineer/Professional Engineer	\$225.00
Professional Engineer	\$175.50
Professional Geologist	\$168.76
Environmental Scientist	\$101.26
Environmental Specialist	\$84.38
Paraprofessional	\$79.40
Technician	\$79.40

Rates include all direct costs.

Under penalty of perjury, I declare that I have read the foregoing and the facts stated in it are true. False statements may result in criminal prosecution for a felony of the third degree as provided for in Section 92.525(3), Florida Statutes.

Sara Greivell, President

Printed Name and Title

Sara Greivell

Signature

12/13/23
Date



2024 RATE SCHEDULE

Labor: Professional services will be provided to Nassau County at the billing rates set out below. These rates include all overhead and direct and indirect costs. KCI shall provide additional personnel as needed and approved by the Client to perform the services specified by the contract. KCI invoices monthly for work completed, and payment is due upon receipt of the invoice.

POSITION	HOURLY RATE
PRINCIPAL	\$240
PROJECT DIRECTOR	\$195
PROJECT MANAGER	\$185
SENIOR CONSULTANT II	\$170
SENIOR CONSULTANT I	\$160
CONSULTANT II	\$130
CONSULTANT I	\$120
RESEARCH ANALYST II	\$105
RESEARCH ANALYST I	\$95
ADMIN / TECH SUPPORT	\$90

PRW GROUP, LLC

PLANNING • DESIGN • UTILITIES • MANAGEMENT • LEACHATE • WASTEWATER • WATER • REUSE

December 15, 2023

Mr. Sam Levin, P.E.
 President
 S2L, Incorporated.
 531 Versailles Drive, Suite 202
 Maitland, Florida 32751-7301

**RE: Professional Engineering Services Fee Schedule
 S2L, Inc. / Nassau County Continuing Contract for Engineering Services**

Dear Mr. Levin:

The Professional Services Fee Schedule for PRW Group, LLC for the referenced contract is presented below. The billing rates will remain in force throughout the duration of the contract with Nassau County.

**PRW Group, LLC
 Professional Services Fee Schedule (2024)**

Labor Category	Position Code	Billing Rate (1)
Sr. Principal	P8	\$183.28
Principal	P7	\$166.62
Sr. Project Manager	P6	\$144.26
Project Manager	P5	\$136.32
Sr. Professional II	P4	\$115.87
Sr. Professional I	P3	\$102.30
Professional II	P2	\$88.64
Professional I	P1	\$79.77
Sr. CADD Tech	T2	\$77.39
CADD Technician I	T1	\$61.93
Administrative Assistant II	A2	\$50.49
Administrative Assistant I	A1	\$40.39

1. Billing Rates include typical expenses such as mileage, reproduction, and communication costs.

Sincerely,



Richard Wilson, P.E.
 President
 PRW Group, LLC



Nassau County Solid Waste Landfill

Sullivan Environmental Inc.'s Billing Rate Sheet

Because of the type of contractor and construction work required to be conducted by Sullivan Environmental Inc. and the unknown cost of materials and equipment, when needed and requested, Sullivan Environmental will prepare a not-to-exceed estimate proposal to be included in the Work Authorization. The scope and costs will be negotiated on a case-by-case basis.