CS-09-124



**Golder Associates Inc.**

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**VIA E-MAIL ONLY**

November 16, 2009 993-3928.93

West Nassau Landfill
46026 Landfill Road
Callahan, Florida 32011

Attention: Mr. Lee Pickett, Interim Solid Waste Manager

**RE: PROPOSAL TO PROVIDE ENGINEERING SERVICES
LANDFILL GAS COLLECTION AND CONTROL SYSTEM
ADJUSTMENTS AND MONITORING, REPORT PREPARATION AND
CONTINUING O&M
WEST NASSAU LANDFILL
NASSAU COUNTY, FLORIDA**

Dear Mr. Pickett:

Golder Associates Inc. (Golder) is pleased to submit this cost proposal to the Nassau County Board of County Commissioners (Board) for providing professional services associated with performing landfill gas collection and control system (GCCS) monitoring and adjustments, preparation of the semi-annual reports as required under 40 CFR 60, Subpart WWW – New Source Performance Standards for MSW Landfills (NSPS), and continuing operation and maintenance (O&M) of the LFG system at the West Nassau Landfill (WNL). This work is required to meet the NSPS regulations associated with the expansion of the LFG system; these regulations for the site were effective March 1, 2007. This cost proposal provides an overview of the regulatory requirements and site background, Golder's proposed scope of services, schedule, cost estimate, and terms and conditions. Golder has prepared this cost proposal for review by the Board at one of the December 2009 meeting.

## BACKGROUND AND REGULATORY REQUIREMENTS

The GCCS at the WNL currently utilizes an open candlestick flare as the permitted air pollutant control device. This device is associated with the operation of the GCCS. The flare was installed in February 2002, ahead of the NSPS (40 CFR 60, Subpart WWW) regulatory timeline. In late 2006 and early 2007, the GCCS underwent a major expansion in order to comply with 40 CFR 60, Subpart WWW - NSPS. Since March 1, 2007, the site has been required to comply with NSPS regulations, including monitoring and reporting. Golder currently has a task order to provide these services, which is approved through the end of 2009. Note that Golder is aware that the facility has ceased active waste acceptance as of September 30, 2009. This has resulted in some changes in the estimated scope for 2010 based on site activities or lack thereof; however, the monitoring and reporting requirements do continue after waste is no longer accepted.

One recent change in regulations will affect the monitoring and reporting tasks. The U.S. Environmental Protection Agency (USEPA) recently issued new regulations regarding the monitoring and reporting of greenhouse gas (GHG) emissions. This new regulation requires additional monitoring, calibration of monitoring devices, as well as reporting to be performed at the facility. These requirements are in addition to the existing NSPS and Title V Permit requirements. We have added additional scope, including a new task, to this year's proposal to account for these recent changes.

## SCOPE OF SERVICES

### Task 0001: Monitoring and Adjustment Services under NSPS and GHG Reporting Rule

Golder was contracted by the County to provide monitoring and balancing services for the initial GCCS for the 2006 calendar year and continued providing this service for the expanded GCCS for 2007 through 2009. The current (2009) work order covers these services through the end of December 2009. Therefore, the scope of work under this task is to continue to provide the required monitoring and balancing services for the GCCS; this task is proposed to begin on January 1, 2010 and will run through the end of 2010.

The monitoring and balancing services to be provided will be similar to those provided in 2009. The well field consists of 50 gas extraction wells and 12 connections (tie-ins) to the leachate collection system cleanout risers; each of these will be monitored and adjusted on a monthly basis. During the monthly monitoring events, the flare station will also be monitored and adjusted as needed.

Based on the results of the wellfield monitoring, there may be the need for follow-up work, generally including re-checks of the data collected and any adjustments or corrections made. For planning and costs estimation purposes, it has been assumed that one day per month will be spent remonitoring the gas extraction wells or tie-ins that were out of compliance during the initial monthly monitoring event. It should be noted that this task does not include any repairs or adjustments made to the gas extraction wells or header pipe resulting from landfill operations such as mowing the grass and maintaining the cover. Additionally, this task does not take into account additional monitoring which may be required during the start-up of a landfill gas beneficial use project. The non-routine O&M functions will be covered under Task 0003.

New to this task will be the recently added GHG monitoring requirements. Efforts are ongoing to determine the actual monitoring device requirements for the new regulation. Based upon discussions with vendors (including Landtec, the manufacturer of the GEM2000), the USEPA may allow the use of a GEM2000 (which Nassau County currently owns). If this is the case, then weekly readings of the gas concentration of the flare will be required and the costs for Golder to provide this monitoring has been included under this task. If the GEM2000 cannot be used, then a continuous emissions monitor will be required. From the initial review of the GHG rule, it appears that the procurement and installation of a continuous emissions monitor could be required. Estimates for this piece of equipment are approximately $45,000. This proposal does not include the cost for a continuous emissions monitor; however, depending on the final interpretation from USEPA, this equipment could be required and we will notify the County as soon a determination is made.

**Task 0002: Quarterly Surface Methane Monitoring**

NSPS regulations require the surface of the landfill that is covered by the GCCS to be monitored for methane concentrations. Procedures from US EPA Method 21 and the NSPS will be followed. Generally, the monitoring will be performed along the surface of the landfill at 30 meter spacing. The monitoring probe will be kept within 2-4 inches of the landfill surface while continuous sampling is performed. The standard of performance is the limit of 500 ppmv methane above background. Results from the surface methane monitoring will be included in the semi-annual NSPS reports submitted to the FDEP (see Task 0006).

In the event of an exceedance, landfill personnel will be notified and corrective actions must be implemented. Corrective actions may include, but are not limited to the following: the adjustment of gas extraction wells in the vicinity of the exceedance, the placement of additional cover soil, and the repair of GCCS components. Remonitoring will be conducted in accordance with NSPS (10-day and one month). During any quarter, if an area has three failures, the GCCS must be expanded within 120 days of the initial exceedance. An alternative timeline or remedy may be submitted to the FDEP for approval.

For purposes of planning and estimating the associated costs for this task, it has been assumed that each quarter, one 10-day and one 1-month remonitoring event will be required. Any corrective actions beyond adjustments to the gas extraction wells or any repairs to GCCS components will be covered under Task 0003, as would any request for alternate timeline or remedy to FDEP.

**Task 0003: Non-routine O&M Services**

The scope of services to be provided under this task includes inspections and maintenance of various components of the system on a regular basis as well as minor maintenance work. The following provides a list of the inspections and checks that are considered a necessary part of the operation and maintenance of the system:

- Semi-annual check of the blower shaft couplers, alarms, and actuator valves for proper operation and signs of wear and damage;
- Annual preventative maintenance of the flame arrestor, demister pad, and flare thermocouples;
- Follow-up visits required as a result of exceedances at an extraction well(s) or flare, in addition to the one follow-up visit that is included under Task 0001; and
- Follow-up visits required as a result of exceedances during surface methane monitoring, in addition to the 10-day and one month remonitoring events that are included under Task 0002.

Additionally, minor repair or maintenance work identified during the routine inspections or as identified by site personnel will be performed under this task. This work is assumed to be of a non-emergency nature, and can be performed in a planned fashion or as it is encountered during the inspections. This work could include items such as header or lateral pipe realignment or relocation; resetting of pipe supports; replacement of torn, damaged or worn flex hoses; the pumping of gas extraction wells that do not have permanently installed pumps; or replacement of

worn or clogged sample ports. Because some of the work under this task is based on operational needs, replacement of worn or damaged material, and/or field conditions that can vary from month to month, the estimated effort is difficult to predict. We have based the required effort for this task based on the effort required over the past 18 months of activity.

**Task 0004: Small Construction/Repair Services**

On a case by case basis, Golder (and, as needed, subcontractors) can provide small construction/repair services such as:

- Short runs of vacuum header lateral line piping fabrication and installation;
- Adjusting well head height;
- Repairing vacuum line or well casing breaks;
- Replacing/repairing well heads;
- Changing out blowers, air compressors, etc; and
- Performing electrical troubleshooting/repair on flare/blower systems and controls.

Generally, the small construction/repairs that are anticipated will be items that are discovered during the routine monitoring and balancing and/or inspections/checks described under Task 0001, or during an emergency response visit, but that cannot be repaired using the spare parts and/or tools available to the technician performing the visit. Additionally, this task could include moving header and/or lateral lines if the work requires construction equipment and/or materials that could not be provided by the landfill or materials that are not available on site. Another item that would be covered under this task is the chemical treatment of a gas well and/or sump/leachate line for biological or bacterial growth, as has been experienced at the site. Even more so than with Task 0003, the effort required under this task is unknown and we've based the estimate on the activities over the past 2 years and our experience on similar projects.

**Task 0005: Emergency Response Services**

Unscheduled emergency services include events that require immediate response. These could include, but are not limited to:

- Emergency call-out by County personnel;
- Main header line breaks (resulting in no gas flow to the blower/flare station or excessive atmospheric infiltration);
- Odor complaints;
- Loss of flare ignition;
- Cleaning/pumping of sumps;

- Significantly reduced flow rates; and
- Surging vacuum.

Based on our recent task orders, Golder assumes that County personnel will first respond to system upsets such as flare outages or system damage. In the event that site personnel cannot effect repairs or re-start the flare, Golder will be contacted and dispatched to the site at that time. Golder will respond within twenty-four (24) hours of such a call and will be available for emergency services twenty-four hours per day, seven days per week, for the duration of the contract schedule. If the emergency response results in the need for additional repairs or replacement of equipment or significant amounts of material, the necessary work would be conducted under Task 0004, Small Construction/Repair Services. Again, the effort necessary is difficult to predict and we've used our previous experience at this site and elsewhere to estimate the effort required.

**Task 0006: NSPS Semi-Annual Reports**

In accordance with 40 CFR 60.757(f), an affected facility must submit semi-annual reports to the FDEP. Under this task, Golder will prepare the semi-annual reports that will include the following items:

- Value and length of time for exceedance of applicable parameters monitored under §60.756(a), (b), (c), and (d);
- Description and duration of all periods when the gas stream was diverted from the control device through a bypass line or the indication of bypass flow as specified under §60.756;
- 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;
- All periods when the collection system was not operating in excess of 5 days;
- 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; and
- 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.

In addition to the NSPS semi-annual report, a semi-annual Startup, Shutdown, and Malfunction (SSM) Report must be submitted to the FDEP. This report will be prepared by Golder and submitted with the NSPS Semi-Annual Report. This report will include the number of SSM events and whether or not the SSM Plan procedures were followed during the SSM event. In the event an applicable emission limit was exceeded and SSM Plan procedures were not followed, the SSM Plan will need to be revised to address this issue. Revisions to the SSM Plan (if required) will be covered under a separate cost proposal.

**Task 0007: GHG Monitoring Plan**

Under this task, Golder will prepare the written GHG Monitoring Plan to include the following:

- Identification of positions of responsibility for collection of emission data;
- Explanation of the processes and methods used to collect necessary data for the GHG calculations;
- Descriptions of the procedures and methods that are used for quality assurance, maintenance, and repair of all continuous monitoring systems, flow meters, and other instrumentation used to provide data for the GHGs reported under this rule.

This plan is to be prepared and kept at the site and is subject to review upon request of FDEP or EPA. Golder will prepare the plan upon approval of this task order, with the intent to have the plan completed by December 31, 2009; this schedule is based on the facility commencing GHG monitoring on January 1, 2010, per the regulation.

## SCHEDULE

Work under this task order will begin upon approval of this proposal, as the GHG monitoring plan is to be implemented by January 1, 2010 and will continue throughout the 2010 calendar year. The semi-annual reports are due to the FDEP by January 30 and July 30, covering the previous six-month period (July-December 2009 and January-June 2010, respectively).

## COST ESTIMATE

Golder's cost estimate to complete the work as described in the above scope of services is $118,758. A detailed breakdown of the costs for each task and the labor and expenses estimated are included in the attached Table 1. As discussed above, because the landfill is no longer accepting waste and activities on the landfill are greatly reduced, the anticipated costs for several of the tasks (non-routine O&M, small construction/repair services, and emergency response) have been reduced. However, also as noted, there are additional monitoring requirements based on new regulations, which has increased the monitoring task costs. Generally, we have estimated the effort and costs required based on the previous 18 months at the site and on our experience at similar sites. Therefore, we will track these costs closely and notify the Board when these budgets are nearing their limits. Additionally, it should be noted that if the effort is less than estimated, the County is only invoiced for the work performed.

Golder proposes to perform this work on a cost reimbursable not-to-exceed basis in accordance with labor and unit rates shown on the attached table. It should be noted that Golder has not increased our labor rates for this proposal and that the rates for 2009 were also held at the 2008 rates. Therefore, our rates for this 2010 proposal remain at the 2008 rates. Also, because the majority of the work under this task order is field-oriented, we will not include the Office Services Fee for this task order. Therefore, there will be individual charges for items such as photocopies, AutoCAD use, etc.; it is expected that most of these charges will be incurred under Task 0006 and Task 0007. The Board will only be billed actual hours and expenses incurred on the project for work within the agreed scope of services. Direct expenses, such as shipping costs, will be marked-up 12 percent for administrative purposes. Travel and communications costs (except for specific field activities, as estimated in Table 1) will not be billed to Nassau County as stated in our August 1998 proposal. The cost estimate will not be exceeded without prior

authorization from the Board. Note that this cost proposal has been prepared with the assumption that the Landtec GEM will be approved by the USEPA for the monitoring of GHGs and that Golder will utilize the County's instrument for this monitoring activity. If a continuous emissions monitor is required to be purchased and installed, this will be submitted under a separate cost proposal.

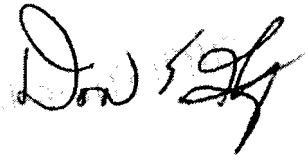
## TERMS AND CONDITIONS

This work will be performed under the Agreement for Consulting Services between Golder and the County, dated February 22, 1999.

Golder appreciates this opportunity to provide our services to Nassau County. If you have any questions regarding this cost proposal, please do not hesitate to call.

Sincerely,

**GOLDER ASSOCIATES INC.**



Don E. Grigg, E.I.T.
Project Engineer

Wendy D. Karably
Senior Consultant/Principal

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TABLE 1

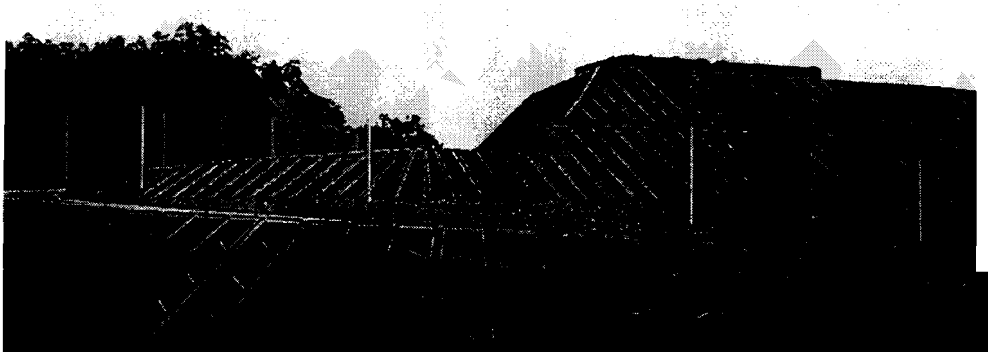
Cost Estimate
2010 GCCS Adjustments, Monitoring, O&M, and Reporting
West Nassau Landfill
Callahan, Nassau County, Florida

| LABOR | | LABOR CATEGORY AND RATE | | | | | | | | | | TOTAL | SUBTOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Practice Leader | Senior Consultant | Senior Engineer | Sen. Proj. Engineer | Project Engineer | Engineer I | Drafting | Senior Technician | Staff Technician | Admin | HOURS | LABOR |
| TASK | DESCRIPTION | $185 | $165 | $135 | $120 | $100 | $90 | $85 | $85 | $60 | $65 | | |
| 1 | GCCS Adjustment and Monitoring | 0 | 36 | 0 | 0 | 104 | 0 | 0 | 12 | 276 | 18 | 446 | $35,090 |
| 2 | Quarterly Surface Methane Monitoring | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 30 | 4 | 42 | $2,860 |
| 3 | Non-routine O&M Services | 0 | 8 | 0 | 0 | 24 | 8 | 0 | 0 | 48 | 4 | 92 | $7,580 |
| 4 | Small Construction/Repair Services | 0 | 12 | 0 | 0 | 18 | 32 | 0 | 12 | 32 | 4 | 110 | $9,860 |
| 5 | Emergency Response | 0 | 8 | 0 | 0 | 24 | 0 | 0 | 16 | 48 | 0 | 96 | $7,960 |
| 6 | NSPS Semi-Annual Reports | 0 | 24 | 0 | 0 | 100 | 0 | 12 | 0 | 16 | 8 | 160 | $16,460 |
| 7 | GHG Monitoring Plan | 0 | 4 | 0 | 0 | 16 | 0 | 8 | 0 | 4 | 4 | 36 | $3,440 |
| | **TOTALS:** | **0** | **92** | **0** | **0** | **294** | **40** | **20** | **40** | **454** | **42** | **982** | **$83,250** |

| EXPENSES | | Field Vehicle (day) | Rental Car Site Visits (day) | Field Equipment & Materials | Mileage (mile) | Shipping Costs | AutoCAD Charges (hr) | Photocopies (pg.) | Color Copies (pg.) | Drawing Reproduction (est.) | Office Services Fee | Subcon-tractors | SUBTOTAL EXPENSES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TASK | DESCRIPTION | $90 | $60 | (est.) | $0.585 | (est.) | $20 | $0.15 | $2 | | (7% of Labor) | | |
| 1 | GCCS Adjustment and Monitoring | 76 | | $1,300 | 500 | $500 | 0 | 200 | 0 | $0 | $0 | $2,000 | $10,963 |
| 2 | Quarterly Surface Methane Monitoring | 8 | | $840 | | $400 | 0 | 0 | 0 | $0 | $0 | $0 | $1,960 |
| 3 | Non-routine O&M Services | 12 | | $1,200 | | $500 | 0 | 100 | 0 | $0 | $0 | $0 | $2,795 |
| 4 | Small Construction/Repair Services | 4 | | $5,000 | | $1,500 | 0 | 100 | 0 | $0 | $0 | $10,000 | $16,875 |
| 5 | Emergency Response | 6 | | $1,000 | | $50 | 0 | 100 | 0 | $0 | $0 | $0 | $1,605 |
| 6 | NSPS Semi-Annual Reports | 0 | | $0 | 150 | $300 | 12 | 1,600 | 24 | $200 | $0 | $0 | $888 |
| 7 | GHG Monitoring Plan | 0 | | $0 | 0 | $100 | 8 | 500 | 20 | $200 | $0 | $0 | $423 |
| | **TOTALS:** | **$9,540** | **$0** | **$9,340** | **$380** | **$3,350** | **$400** | **$390** | **$88** | **$400** | **$0** | **$12,000** | **$35,508** |

| COST SUMMARY | | | | |
|---|---|---|---|---|
| TASK | DESCRIPTION | SUBTOTAL LABOR | SUBTOTAL EXPENSES | TASK TOTAL |
| 1 | GCCS Adjustment and Monitoring | $35,090 | $10,963 | $46,053 |
| 2 | Quarterly Surface Methane Monitoring | $2,860 | $1,960 | $4,820 |
| 3 | Non-routine O&M Services | $7,580 | $2,795 | $10,375 |
| 4 | Small Construction/Repair Services | $9,860 | $16,875 | $26,735 |
| 5 | Emergency Response | $7,960 | $1,605 | $9,565 |
| 6 | NSPS Semi-Annual Reports | $16,460 | $888 | $17,348 |
| 7 | GHG Monitoring Plan | $3,440 | $423 | $3,863 |
| | **TOTALS** | **$83,250** | **$35,508** | **$118,758** |

Note that equipment needed to comply with the recent GHG rule has not been included in this proposal as it is expected that the Landtec GEM may be approved by USEPA for GHG monitoring. If needed, Golder will provide an additional cost estimate to cover the costs associated with this equipment.



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## Mandatory Reporting of Greenhouse Gases Final Rule

On September 22, 2009, the U.S. Environmental Protection Agency (EPA) finalized the Mandatory Greenhouse Gas Reporting Rule. This rule will affect over 13,000 facilities throughout the U.S. that emit greenhouse gases (GHG). There are 25 industrial categories with specific requirements, 5 supplier categories, and special rules for mobile sources. Those subject to the rule must monitor, maintain records, and report their actual emissions of $CO_2$, $CH_4$, $N_2O$, $SF_6$, HFCs, PFCs, and other fluorinated gases. The data collected will be used in developing future policies (controls). Here are some key points for facilities subject to the GHG Reporting Rule:

### Who must report and under what conditions?

- This rule impacts facilities emitting 25,000 metric tons or more of $CO_2$ equivalent ($CO_2e$) GHG emissions per year, although some smaller emitters may also have to report.
- There is no mechanism for small-source deminimus cut-offs. All identified on-site sources must be included.
- Portable equipment, emergency generators or equipment are not included.
- Accuracy of emissions data will be ensured through specific monitoring, recordkeeping, and verification requirements.

### When does this start?

- Monitoring and recordkeeping for calendar year 2010 emissions begins on January 1.
- The first annual GHG report is due March 31, 2011 for calendar year 2010 then annually thereafter.

### What are the first actions that must be taken?

- A monitoring plan must be prepared identifying key individuals collecting the data, data collection methods, calculation procedures, quality assurance protocols, equipment logs, and repair procedures.

### What kind of report is required?

- Annual reports will be submitted directly to EPA using a web-based reporting system.
- Reports are to be certified as correct by a designated representative of the owner or operator.
- Facilities with emissions slightly below the threshold are wise to keep track of their emissions and control the emissions that could cause them to exceed the threshold.

Municipal Solid Waste Landfills are a specific industrial group required to report GHG emissions. The requirements for landfills are as follows:

- MSW landfills that accepted waste on or after January 1, 1980 and have a capacity or waste-in-place greater than 350,000 metric tons may be subject to the rule.
- MSW landfills that generate $CH_4$ in amounts equivalent to the 25,000 metric tons $CO_2e$ or more per year are subject to reporting requirements. This is equivalent to an LFG generation rate of 240 scfm @ 50% methane.
- Subpart HH requires reporting of GHG emissions from the MSW landfill, LFG gas collection system, and LFG destruction devices (including flares, engines, turbines, boilers, etc. at the landfill).
- Subpart HH does not include hazardous waste, construction and demolition, or industrial landfills at this time.
- The annual report must include $CH_4$ generation, $CH_4$ emissions from the landfill, and annual $CH_4$ collected and destroyed.
- Annual $CO_2$, $CH_4$, and $N_2O$ emissions from stationary combustion devices must be reported following the guidelines in Subpart C.

**For the entire reporting regulation, go to:**
http://www.epa.gov/climatechange/emissions/ghgrulemaking.html

## What are the details for Subpart HH?

- Specific formulas requiring waste receipts and appropriate default values are provided for calculating $CH_4$ generation. Procedures are available when waste disposal tonnages are not available.
- $CH_4$ emission reductions due to oxidation in the cover are allowed (10% specified).
- Missing data procedures are used when certain data is missing or when a monitor malfunctions.
- $CH_4$ destruction efficiency is based on the manufacturer's guarantee or 99%, whichever is less.
- Transport of LFG to an off-site third party is considered to achieve 100% control efficiency for the landfill.
- Emission of $CH_4$ through the surface to the atmosphere is the difference between $CH_4$ generation and collection adjusted for soil oxidation.
- Composition of collected LFG is to be analyzed by EPA standard methods.
- Correction for non-methane organic compounds in the LFG stream is required.
- LFG flowmeters must meet EPA-approved specifications.
- Calibration of all equipment (including scales) is required based on the manufacturer's recommendations.
- Procedures to ensure accuracy of the estimates of disposal quantities, gas flow rate, and gas composition must be documented.
- $CH_4$ destruction calculations are based on 1) continuously monitoring LFG flow rate, $CH_4$ concentration, Temperature (T), Pressure (P), and moisture content; or 2) monitor LFG flow rate continuously, collect weekly grab samples (near the flowmeter) and record $CH_4$ concentration, T, P, and moisture content.

## What information is required to be included in the report?

- Operation status (open or closed)
- Year of initial waste receipts
- Actual or anticipated closure year
- Design capacity
- Whether or not leachate recirculation is used
- Historical annual waste receipts
- Method of estimating waste disposal quantity and rationale for method
- Waste composition reported as a percentage of municipal waste, biosolids, or other (for which k values have been established); report degradable organic carbon content and decay rate (k)
- Measured fraction of methane in the LFG
- Surface area of the landfill containing waste
- Cover types
- Oxidation fraction for each cover type and area
- Average oxidation rate used in calculations
- Modeled annual methane generation rate for the reporting year

## For landfills with GCCS, the report must include the following:

- Volumetric flow of LFG generated
- $CH_4$ concentration
- Average monthly temperature and pressure data unless flowmeter corrects to standard conditions
- On-site or off-site destruction
- Hours of operation of on-site destruction device, hours of operation of backup device (if used)
- Annual quantity of collected methane
- Description of GCCS including manufacturer, capacity, number of wells, surface area and depth for segregated areas, collection efficiency, and annual operating hours

Golder's staff has extensive experience in the solid waste industry and is available to support you in meeting the requirements of this new regulation. Our landfill gas design group can assist with the specifications for monitoring equipment. Our regulatory compliance staff can prepare your initial monitoring plan using a template we have developed to make preparation more streamlined and cost effective, including establishing the monitoring and recordkeeping systems, preparing the worksheets for electronic data management, and assisting in the verification of the data collected. Our staff can assist you directly, or prepare and submit the reports to the EPA on your behalf.

Golder has 1,200 professionals in more than 45 offices across the country. Golder has a long and continuous involvement with solid waste projects. During our more than 40 years serving the waste industry, Golder has successfully completed projects at over 900 waste management facilities in 22 countries. This experience allows us to deliver site-specific solutions for waste reduction, recycling, composting, secure disposal, LFG management, leachate management, environmental monitoring, and asset monitoring.

To find the office nearest your facility, please visit our website at
**www.golder.com**

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