

**POLLUTION CONTROL FINANCING AUTHORITY
OF WARREN COUNTY**

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Request For Proposals

**Pollution Control Financing Authority
Annual Landfill Gas Services**

The Pollution Control Financing Authority (PCFA) has prepared the following Request For Proposals for Qualified Engineering firms licensed in the state of New Jersey to address five (5) specific scope items related to the on-going maintenance and monitoring of the Gas Collection and Control System (GCCS) at the Warren County District Landfill. The PCFA welcomes Proposals for the tasks outlined below on an individual basis or as a group. For the next 12-month period, the following general and specific activities are anticipated:

- Task 1 – General Engineering Support
- Task 2 – General Air Pollution Control Regulatory Support
- Task 3 - Emissions Monitoring and Reporting
- Task 4 - Operations & Maintenance Support
- Task 5 - Master Plan Update

These environmental compliance and consulting tasks are discussed in greater detail in the following paragraphs.

Project Tasks and Schedule

Task 1 – General Engineering Support

Within the scope of General Engineering Support, Engineer will provide assistance to PCFA with the engineering design elements on an as needed and as requested basis. General engineering support will include regular communication and coordination with PCFA and attendance of project and board meetings as necessary or required. Additionally, under this task, Engineer may provide evaluations, calculations, and the preparation or modification of drawings, reports or technical specifications.

Since the work scope under this task is not specifically defined at this time, the engineering tasks actually performed will be specifically in response to the needs of PCFA throughout the year. The Engineer will work closely with the Operations Manager along with the PCFA Board regarding the engineering support tasks required by PCFA. In the performance of these routine services, if larger tasks are requested by PCFA, additional work scope may be required to be authorized.

Task 2 – General Air Pollution Control Regulatory Support

Within the scope of General Air Pollution Control Support, the Engineer will provide assistance to PCFA with NJDEP and USEPA air pollution control regulatory support on an as needed, as requested basis. The PCFA anticipates the following subtasks may be performed in 2009-2010. Should other air pollution control regulatory support be required throughout the course of the year that work will be performed and billed under this task.

- Preconstruction Permit – The revised preconstruction permit application was recently submitted to the Department. The purposes of the application were: (1) to revise the current operating restriction for the open flare to allow it to operate 8,760 hours per year, and (2) remove or revise existing permit conditions that are either incorrect, don't apply, or place an inordinate regulatory burden on WCDL. The PCFA anticipates that NJDEP will issue a draft permit some time in 2009. Once the draft permit is issued, Engineer will review this permit, discuss the draft with PCFA, and provide comments to NJDEP, if warranted. The Engineer will work with PCFA and the Department to ensure the permit is accurate and amenable to all parties involved.
- Operating Permit – The operating permit application was submitted to NJDEP and currently undergoing regulatory review. The PCFA anticipates that NJDEP should issue a draft permit some time during calendar 2009. It will be necessary both to review and comment on the draft permit as well as incorporate in to the operating permit the revisions that have been made with the recent Preconstruction Permit modification application. Once a draft of the permit is issued, the PCFA anticipates the need to review this permit and respond with comments. Prior to submittal of comments to NJDEP, the Engineer will review the permit and the permit implications with PCFA, and provide comments on behalf of the PCFA.
- The Engineer will provide support for the pending administrative hearings as needed and requested.

Task 3 – Emissions Monitoring and Reporting

Landfill Gas Sampling

Under this task Engineer will, on a quarterly basis, perform landfill gas sampling and analysis, review landfill gas throughput at the flare station and prepare a report of landfill gas emissions.

According to the Air Pollution Control Pre-Construction Permit Emission Unit E3, Operating Scenario OS, Ref # 2:

“.....Permittee shall sample and analyze the landfill gas by gas chromatography and mass spectoscopy (including methane, non-methane organic compounds including toxic volatile organic substances listed at N.J.A.C. 7:27-17 (i.e. benzene, carbon tetrachloride, chloroform, ethylene dibromide, ethylene dichloride, tetrachloroethane, perchloroethylene, vinyl trichloride, trichloroethene), hydrogen sulfide.....”

This monitoring was to be performed quarterly for the first year and annually there after. From the perspective of compliance, the testing should be performed and reported on an annual basis. From an operations perspective, the PCFA will require performance of hydrogen sulfide monitoring on a more frequent basis. Since sulfur compounds are the principal cause of odor in landfill gas, observing the trending in the hydrogen sulfide concentration will be important to the landfill's long-term planning and operation. Therefore, the PCFA will require Engineer to perform sampling and analysis for hydrogen sulfide on a quarterly basis and provide all results and documentation to the PCFA.

To address both of these objectives, the Engineer will obtain a sample of landfill gas taken from the landfill gas header in the general vicinity of the landfill gas flaring station. The landfill gas sample will be tested for the above constituents. Upon receipt of analysis, Engineer will develop and submit a report to PCFA. It is anticipated that each quarterly report will be submitted within 30 days of the sampling events. One event, identified as the annual event will be submitted to NJDEP. Under this scope of services the PCFA has assumed the performance of four quarterly monitoring events, including sampling, analysis and reporting to PCFA or NJDEP as appropriate.

Surface Emissions Monitoring

PCFA is not required to comply with the monitoring and reporting standards of the "New Source Performance Standards" (NSPS) at this time. Referencing the SCS Engineers, May 7, 2007 Comment Letter, the Design Capacity of PCFA is 3,016,156 cubic yards (yd³). This converts to 2,306,016 cubic meters (m³), which is less than NSPS applicability threshold of 2,500,000 (m³). Engineer shall review and confirm, that the assumptions behind the provided Design Capacity assures that PCFA is not NSPS Applicable.

With this noted, compliance surface emissions monitoring in accordance with NSPS protocol can be beneficial to landfill operations. Therefore Engineer shall provide quarterly surface emissions monitoring in conjunction with the landfill gas sampling and reporting. Engineer's technician will traverse the surface of the landfill in an established grid pattern monitoring for fugitive emissions of landfill gas. Observed releases will be reported to PCFA and recommendations for modifications to landfill operations, or the landfill gas collection and control system will be made at the time of the surface emissions monitoring event. Because the site is not NSPS applicable, the results need only be reported to PCFA for assessment of changes to operations and environmental controls. No reporting to NJDEP is included under this task.

In order to perform this work the Authority will provide site drawings electronically in AutoCAD compatible format for use as a base map for the field traverses.

Annual Emissions Statement

Under the terms of PCFA's air emissions permit, an annual emissions statement is required. To address this requirement, Engineer shall develop the actual emission inventory and RADIUS Emission Statement in accordance with NJAC 7:27-8.15(d). The annual emissions statement assumes the following:

- A data collection form will be provided to PCFA by Engineer, which should include gasoline and diesel throughput, other fuel use, leachate flows, quantity of waste disposed, landfill gas rates and flare information.
- PCFA /Engineer should complete the form by mid-April 2009.
- The facility's actual criteria pollutant emissions for 2008 will be calculated as well as calculations for additional contaminants, if required by recent changes in DEP regulations. Actual data or emission factors will be used to determine the criteria emissions.
- The data will be entered into RADIUS, as required by NJDEP.
- The draft cover letter, RADIUS forms with the emission inventory, and certification page will be forwarded to PCFA for its review and approval.
- The final statement, after incorporating comments, will be provided to PCFA on or before May 11, 2009 so it may be submitted by PCFA to NJDEP before the due date of May 15, 2009.
- Back-up calculations and a copy of the RADIUS submittal will be provided for PCFA files.

Task 4 – Operations, Maintenance, and Monitoring Support

This project task encompasses fieldwork associated with landfill gas system operation, maintenance, and monitoring (OMM). This task will include various planned and unplanned activities, which require attention in order to keep the landfill gas field operating to control odors and to supply landfill gas to the energy plant. Services required under this task may be determined in the field during other field activities or may be specifically requested by PCFA. Unless required to be performed outside of normal business hours, all OMM services will be discussed with PCFA prior to implementation.

Additionally under this task, Engineer will provide construction support in the form of providing minor construction related to GCCS system modification. This construction support may include the installation of small diameter landfill gas collection and/or condensate piping, the extension of landfill gas collection wells to accommodate anticipated filling, replacement of landfill gas well heads, and the re-alignment of landfill gas lateral piping. No specific OMM or construction

support activities have been identified at this time. The budget for this task therefore represents a contingency amount for future work that may be incurred.

Task 5 – Master Plan Update

An annual update of the GCCS Master Plan shall be prepared to reflect the changes in topography that have occurred as a result of waste filling, the incorporation of operational modifications which have been implemented over the course of the past year, and anticipated GCCS expansion necessary to address anticipated landfill gas generation, fugitive emissions, and odor control.

Under this project task, Engineer will update the existing GCCS Master Plan. The update will begin with a review of the most recent landfill gas generation curve to confirm that project site conditions continue to be in alignment with the assumptions made at the time that the landfill gas generation estimate was performed. If the landfill gas generation model is determined to be acceptable, the remainder of the GCCS Master Plan will be updated. If the landfill gas generation model is not reflective of current site conditions, an update to the model will be performed. This update will be included under the scope of Task 2 of this proposal.

Once the landfill gas generation model is confirmed, Engineer will revise the GCCS site plan drawing. The drawing will be modified to reflect system modifications implemented since the last update of the Master Plan. Engineer will initially prepare a draft of the plan modifications. Once this draft has been prepared, the landfill gas collection pipe sizing will be confirmed utilizing a computer based pipe flow calculator, KYGAS.

The PCFA will provide the existing GCCS Master Plan drawings electronically in AutoCAD compatible format. PCFA will review the existing GCCS drawings and identify changes that have been implemented in the field which need to be reflected within the updated Master Plan.

Budget

Based upon the foregoing scope of work, Engineer estimates the total work that may be performed under this scope to be \$_____. The budget estimates for each of the individual tasks follows:

Task No.	Task Name	Hourly Rates	Task Budget
Task 1	General Engineering Support		\$
Task 2	General Air Pollution Control Regulatory Support		\$
Task 3	Emissions Reporting (Lump Sum)		\$
Task 4	Operations, Maintenance & Monitoring		\$
Task 5	Master Plan Update (Lump Sum)		\$

Engineer shall perform the above scope of work on a time and materials basis. Several of the tasks are estimates only and are based on no specifically anticipated work activities. In the event these tasks are implemented, the scope of work will be determined on an assignment-by-assignment basis.

Schedule

It is understood that the above stated scope of services considers a contract term of one year beginning on March 12, 2009 and ending on February 28, 2010. The schedule for monitoring and reporting will correspond to the time frames established in the facility's air permit.

Engineering Firms Qualifications

Listed below you will find the qualifications required by the PCFA of the Engineering Firms responding to this Request For Proposals. The Engineering firm should have prior experience in all of the following:

- 1) Landfill Gas Collection System Design
- 2) Landfill Gas Collection System Permitting
- 3) Landfill Air Emissions permitting
- 4) Landfill Air Emissions Monitoring
- 5) Landfill Solid Waste Design
- 6) Knowledge and Experience with NJDEP Regulations

In addition to the above, the Engineering firm should have a field services division specifically for landfill gas collection and control systems.

Submission of Proposal

Engineer shall provide a list of references with contact numbers where the above referenced minimum qualifications have been performed. The PCFA reserves the right to award this RFP on a limited task by task basis. Individual task(s) may be awarded to multiple Engineering Firms.

Engineer shall submit their sealed proposal (1 Original and 6 Copies) to the PCFA by March 4, 2009 at 12:00 noon. Proposals shall be clearly marked "Proposal Annual Landfill Gas Services". PCFA shall not be responsible for delays in delivery by the U.S. Postal Services or any other courier service. Proposals shall be submitted to:

Pollution Control Financing Authority
Attention: James Williams
P.O. Box 587
500 Mt. Pisgah Ave.
Oxford, NJ 07863