



Administrative Control Board
Washington County Solid Waste Special Service District #1

October 26, 2011

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Irvine, CA 92614

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SCS Field Services
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Mr. Darrell Thompson
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Western Regional Manager
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7047 E. Greenway Pkwy, #250
Scottsdale, AZ 85254

**Re: Washington County Landfill
Gas Collection and Control System Operations, Maintenance, and Reporting
Services Request for Proposals**

Dear Sirs:

Washington County Solid Waste (WCSW) Special Service District Number (No.) 1 (District) is seeking proposals for the Operations and Maintenance (O&M) and Reporting services for the gas collection and control system (GCCS) at the Washington County Landfill (WCL).

BACKGROUND

WCL is located at 325 North Landfill Road in Washington, Utah. WCL is owned by the District and is operated by Republic Services Group, Inc. (Republic). WCL accepts municipal and commercial waste, and operates under Utah Solid and Hazardous Waste Control Board Class I Solid Permit Number 9410R2.

WCL is subject to the New Source Performance Standard (NSPS) for Municipal Solid Waste (MSW) Landfills, 40 Code of Federal Regulations (CFR) Part 60 Subpart WWW, because the site commenced construction, reconstruction, or modification after May 30, 1991. WCL is also subject to Utah Administrative Code Title R307, Environmental Quality, Air Quality, which is administered by the Utah Department of Environmental Quality (UDEQ), Utah Division of Air Quality (UDAQ), and incorporates the federal standards by reference.

Tier 2 sampling performed in accordance with the NSPS indicated that WCL exceeded the Non-Methane Organic Compound (NMOC) emission threshold of 50 megagrams (MG) per year starting in 2009. Therefore WCL is also subject to 40 CFR Part 63 Subpart AAAA, the National Emission Standard for Hazardous Air Pollutants (NESHAP). As required by the NSPS, the District prepared and submitted a Gas Collection and Control System (GCCS)

Design Plan, as required by the NSPS regulations. Consequently, the Landfill is required to install and operate a GCCS by December 10, 2011.

By the end of October 2011, the District will have completed installation of a GCCS consisting of 24 vertical landfill gas (LFG) extraction wells, associated twelve-inch, eight-inch, and six-inch diameter header and lateral piping, a condensate pump station, and a utility flare skid (GCCS Site Plan attached). The utility flare skid was manufactured by LFG Specialties, Inc. and is rated for 700 standard cubic feet per minute (scfm). Per Approval Order (AO) number DAQE-AN0119790002-11, the utility flare is limited to 295 scfm until further information is gathered on the concentration of hydrogen sulfide (H₂S) in the LFG.

PROPOSED SCOPE OF SERVICES

The GCCS Contractor (Contractor) will provide operations, monitoring, maintenance and reporting for the GCCS at the WCL as outlined below. Work will be conducted in accordance with the Solid Waste Association of North America (SWANA) Landfill Gas Division Health and Safety Task Force, "A Compilation of Landfill Gas Laboratory and Field Practices and Procedures," dated March 1992. The Contractor will perform all on-site work in Occupational Safety and Health Administration (OSHA) Level D protection, including hard hats and safety vests.

The following is the general scope of services for conducting O&M and reporting for the GCCS at WCL in accordance with applicable regulations and permits mentioned above. The scope of work below is not intended to be exhaustive and bidders are expected propose a scope of work and budget suitable for meeting the requirements of the **WCL GCCS O&M Manual** prepared by Cornerstone Environmental Group, LLC (October 2011) and the **LFG Specialties User Manual Unit #2241** (October 2011). The **Republic Services Group, Inc. LFG Management Standard Operating Procedures** (May 2009) shall also be considered as guidance in performing the scope of work at the WCL GCCS. During the execution of the O&M portion of work, good industry practices shall be adhered to at all times.

PROJECT TASKS AND SCHEDULE

Task 1 – Routine LFG System Operation, Monitoring, Maintenance and Reporting

The Contractor will operate, monitor, and maintain the LFG extraction wells and utility flare station equipment with the primary objective to control LFG migration, keep surface emissions of methane below 500 parts per million (ppm), monitor for methane leaks in positive pressure components, and recommend improvements to optimize system performance.

1.1 - Flare Station Monitoring

Weekly

In accordance with the WCL Greenhouse Gas (GHG) Monitoring Plan (Republic, March 2010), the Contractor shall collect and provide required GHG data from the LFG utility flare station weekly including but not limited to:

- LFG Flow rate;
- LFG Temperature;
- LFG Pressure;
- LFG Methane content; and
- Total LFG treated by the utility flare.

Data shall be maintained in hard copy or electronic format and provided to the District within 48 hours of collection. Data must be collected during the calendar week of Sunday to Saturday with at least three (3) days between readings. Methane content must be measured using an approved measuring device such as a Landtec GEM-2000. Bidders may obtain a copy of the WCL GHG Monitoring Plan from the District for more information if required.

- **Respondents are requested to provide a separate bid item for weekly GHG data collection and recording.**

Monthly

The Contractor will perform monthly monitoring of the utility flare station. The following data will be collected, recorded, stored electronically, and forwarded to the District:

- Date, time, and monitoring personnel;
- Meteorological conditions (i.e. wind velocity, barometric pressure, ambient temperature, weather conditions, etc.);
- Extraction blower(s) operating inlet and outlet temperatures and pressures;
- Methane, oxygen, carbon dioxide gas concentrations at flare inlet;
- Condensate sump pump stroke count;
- LFG flow rate to flare; and
- Supply air pressure at the compressor, fail close valve, and the condensate pump station.

In addition, the Contractor will perform the following monthly inspections of the Flare Station:

- Check air compressor/oil level;
- Check pilot ignition system propane storage tank level; and
- Inspect the LFG control system blowers, flame arrester, flare and control panels and observe for accessibility, vandalism, malfunctions and leaks.

Quarterly

- Measure the H₂S content going to the flare with approved sampling protocol (e.g. colorimetric tubes); and
- Conduct a visual opacity survey of the utility flare exhaust and record whether or not emissions are observed. If the Contractor observes any emissions other than steam,

the Contractor shall immediately notify the District and an opacity determination of the emissions shall be performed by a certified observer within 24 hours as a non-routine task. The opacity determination shall be performed in accordance with 40 CFR 60, Appendix A, Method 9 for point sources, and 58 FR 61640 Method 203 C for fugitive emission sources.] The Contractor shall provide a time and materials estimate to the District prior to conducting the non-routine opacity determination, if required.

1.2 - Well Field Monitoring

Monthly

The Contractor will perform monthly monitoring of the 24 vertical LFG extraction wells. Any vacuum adjustments needed at the wellhead to meet NSPS wellhead criteria shall be made on the same day as monitoring and the Contractor is expected to perform one round of follow-up monitoring as part of routine monitoring. The following data will be collected, recorded, and stored in an Excel database by the Contractor:

- Date, time, and monitoring personnel;
- Equipment used;
- Meteorological conditions (i.e., wind velocity, barometric pressure, ambient temperature, weather conditions, etc.);
- Pressure (vacuum);
- Methane, oxygen, and carbon dioxide gas concentrations;
- Wellhead vacuum and flow (where applicable);
- System side vacuum;
- Header vacuum (where applicable);
- LFG temperature;
- Corrective actions taken per NSPS compliance; and
- Remonitoring results per NSPS compliance.

Quarterly

The Contractor will perform quarterly Surface Emissions Monitoring (SEM) over the landfill surface containing the GCCS in accordance with 40 CFR Part 60 Subpart WWW, as applicable.

Areas of the landfill surface with emissions in excess of 500 parts per million (ppm) as methane will be flagged in the field, located on a site map by the Contractor, and reported to the District Manager prior to leaving WCL. The District will assist in making repairs to the landfill cover if needed, provided a minimum of 72 hours of notice is provided in advance of needing cover repairs. The Contractor is responsible for making adjustments to the well field to correct areas with emissions. The Contractor is responsible for remonitoring the repaired areas within required regulatory timeframes.

1.3 - Flare Station Maintenance

Monthly

The Contractor will perform monthly maintenance of the Flare Station, including the following:

- The blowers (and motors) will be lubricated in accordance with the manufacturers recommendations;
- Rotate active/inactive blowers;
- Inspect the differential pressure drop across the moisture knockout pot (KOP);
- Inspect flame arrester by measuring the differential pressure across the unit;
- Drain/purge water traps, monitors, and pitot tubes;
- Clean and maintain monitors/sensors, differential pressure gages and data recorders;
- Inspect air regulators, controllers and filters, and replace as needed;
- Inspect and lubricate air compressor (including motor), add coolant as needed, inspect and clean filters, and replace as needed;
- Clean and maintain access to control panels;
- Download, maintain, and store recorded data as necessary;
- Check Flare Station controller set points and adjust as necessary;
- Check alarm panel history and document it; and
- Check oil/water separator unit per manufacturer's recommendations.

Quarterly

The Contractor will perform quarterly maintenance of the Flare Station, including the following:

- Check / clean ultraviolet (UV) flame sensor;
- Check condition of thermocouple;
- Check proper operation of heat tracing;
- Update spare parts inventory;
- Refill propane as needed;
- Prepare a list of critical spare parts needed; and
- Perform general housekeeping at the flare station.

Annually

The Contractor will perform annual maintenance of the Flare Station, including the following:

- Inspect vessels and piping systems for corrosion;
- Prepare and update an inventory list of critical spare parts (e.g., data diskettes, electrical components, etc.);
- Clean condensate knockout pot as necessary;
- Clean flame arrestor as necessary;
- Test system alarms and fail safe mechanisms;
- Conduct annual maintenance of the Gardner Denver air compressor in accordance with manufacturer's recommendations;
- Calibrate flow meters if deemed necessary (annually is industry standard).

1.4 - Well Field Maintenance

Monthly

Monthly GCCS maintenance performed by the Contractor will include but is not limited to the following;

- Check laterals for low spots and presence of condensate;
- Check flex hoses for presence of condensate blockage; and
- Monitor the landfill cover for cracks, erosion, exposed waste, stressed or dead vegetation;

Quarterly

- Inspect and calibrate the continuous LFG (methane) monitors located in the scale house, maintenance shop, and office building; and
- Update well field spare parts inventory.

Annually

- Sound wells and report depth to bottom, to water, or to refusal and summarize overall well condition; and
- Exercise valves.

Emergency Maintenance

Non-routine unscheduled/emergency repair and maintenance services include events that require immediate response to protect life, property, the environment, or to restore system operation. These events may include, but are not limited to, the following:

- Emergency call-out by alarm systems or by District personnel;
- Odor complaints;
- Loss of LFG flow or flame failure;
- Repair of main header lines (resulting in no gas flow to the Flare Station); and

- Notification of UDEQ/UDAQ violation condition.

Response to the urgent nature of these items is such that they cannot be scheduled. The Contractor will respond to these conditions, as needed, 24 hours per day, seven days per week, and 365 days per year. Consultant personnel will respond to emergency situations within 24 hours of notification and as directed by the District. The Contractor will be compensated on a time and materials basis for non-routine unscheduled emergency services authorized by the District. The Contractor shall provide emergency labor and equipment rates for emergency services with their proposal. Prior to responding to an automatic callout, the Contractor will make every attempt to contact the District Manager or the Republic Operations Manager when needed to perform emergency services for authorization and to determine if the callout shall be handled by the District, Republic personnel, or by the Contractor. When it is not possible to get the District or Republic's authorization prior to conducting emergency services, the Contractor shall prepare a summary report of the actions that led to the emergency services, the corrective actions taken, and the time and materials required to correct the emergency condition. The District will review the Contractor's emergency services summary report for consideration of reimbursement.

Non-Routine Scheduled Maintenance

The Contractor will notify the District of any proposed non-routine scheduled maintenance, and will not perform any non-routine scheduled maintenance work without prior authorization from the District. The Contractor will provide a time and materials estimate of the non-routine maintenance required for the District's review before conducting the work. The Contractor shall provide rates for non-routine labor and equipment with their proposal and such rates shall apply to any authorized non-routine estimates and completed services. Following completion of non-routine maintenance, the Contractor shall provide a brief summary report.

Examples of non-routine maintenance include, but are not limited to:

- Repair or replacement of broken/leaking/stretched well head flexible hoses;
- Repair or replacement broken/non-adjustable well heads;
- Removing spool piece laterals to accommodate fill operations;
- Replacement of laterals upon completion of fill operations;
- Raising wells to accommodate fill operations using prefabricated spool pieces;
- Reinstalling wells heads upon completion of fill operations;
- Raising or realigning LFG collection pipe to ensure proper drainage; and
- Repairing or replacing missing test port caps and leaking flexible connectors.

Task 2 - Reporting

Reporting shall be done on a monthly, quarterly, semi-annual, and annual basis. The Contractor will prepare and submit all reports suitably bound. The Contractor will also make available electronically to the District all reports in an Adobe pdf or Microsoft Word format

unless other formats are required per applicable regulations. In addition to being included in the suitably bound reports, the Contractor will make available to the District all extraction well monitoring data, quarterly onsite structure monitoring or sensor calibration results, and surface emissions monitoring data in a Microsoft Excel format.

Monthly

The Contractor will prepare a monthly operating, monitoring, maintenance, and compliance report. The Contractor will submit the suitably bound report to the District by the 15th of the following month. The report will contain the following:

- Data collected for the month;
- Compliance issues and approaching deadlines;
- Wells off-line;
- Quarterly monitoring status;
- LFG recovery operations summary;
- Wellfield maintenance;
- Flare station maintenance;
- Condensate pump maintenance;
- Condensate pump stroke total;
- Meteorological conditions during monitoring;
- Health and Safety Issues;
- Flare Station Startup, Shutdown, and Malfunction (SSM) checklist;
- Flare Station SSM Log;
- Wellfield SSM checklists;
- Wellfield SSM Log;
- Wellfield deviations and corrective actions;
- A summary of all activities performed on the project during the month, including assistance with the local enforcement agency (LEA), UDAQ, or subcontractors;
- Recommendations for maintenance repairs and/or system modifications;
- Equipment calibration logs;
- Summary of callouts (if any); and
- Sampling procedures.

Quarterly

The Contractor will prepare a quarterly report of SEM results, visual opacity observation results, structure monitoring or sensor calibration, and H₂S monitoring results. The Contractor will submit the suitably bound report to the District by the 15th of the first month of the following quarter, pending results of the 30-day follow-up monitoring for the SEM

tasks. The Contractor shall endeavor to complete the Quarterly SEM including 30-day follow-ups by the end of the quarter being monitored to ensure the reporting deadline is met.

The report will contain the following:

- All data required by the most recent regulations to be collected during SEM including a map showing monitoring locations and readings;
- Meteorological conditions during monitoring;
- Monitoring equipment calibration logs;
- Sensor calibration logs;
- Log of results, corrective actions, follow-up readings;
- Opacity monitoring results; and
- H₂S monitoring results.

Semi-Annual

The Contractor shall prepare semi-annual reports in accordance with the WCL Title V Permit Number 5300053002. See Task 3 below.

Annual

The Contractor shall prepare the following annual reports and is responsible for collecting required pertinent information:

- Annual Emissions Inventory – See Task 4 below;
- Annual Compliance Certification- See Task 5 below; and
- Annual GHG Data Submittal – See Task 6 below.

Task 3 – Title V Reporting: Two Semi-Annual NSPS Reports

The Contractor shall prepare two (2) semi-annual NSPS Title V reports for submittal to the UDAQ and the USEPA, Region 8 in accordance with Condition I.S.2a of the WCL Title V Permit Number 5300053002 and UDAQ Rule (R)307-415-6a(3)(c)(i). Title V reports are due on or by April 15 and October 15 for the reporting periods of March 1 through August 31 and September 1 through February 28. The Contractor shall provide the District with a draft semi-annual report no less than 10 business days prior to the due date for review and comment. Following incorporation of comments, the Contractor shall submit the semi-annual reports to the UDAQ and USEPA Region 8.

All reports must be certified by the WCL Responsible Official in accordance with UDAQ R307-415-5d. The Contractor is responsible for collecting all data required for the semi-annual reports pertaining to the operations and maintenance of the GCCS. The District will provide other essential information for non-GCCS related permit compliance items.

Task 4 – Annual Emissions Inventory

The Contractor shall prepare an Annual Emission Inventory in accordance with the WCL Title V Permit Number 5300053002, Condition I.U. and in accordance with UDAQ R307-150. The Annual Emissions Inventory shall be submitted on or before April 15 following the calendar year for which the inventory is due. The Contractor will prepare the draft report for submittal to the District 10 business days prior to the UDAQ due date for review and comment. The Contractor will finalize and the report to the UDAQ and to the United States Environmental Protection Agency (USEPA), Region 8. The Annual Emissions Inventory shall include the H₂S data collected quarterly during routine monitoring and maintenance.

Task 5 – Annual Compliance Certification

The Contractor shall prepare the Annual Compliance Certification for WCL in accordance with I.L.1 of the Title V permit and R307-415-6c(5). Compliance Certifications shall be submitted to the UDAQ and to the USEPA Region 8 on or before April 15 for the prior calendar year. The Contractor shall provide the District with a draft Compliance Certification no less than 10 business days prior to the due date for review and comment.

Task 6 – Annual GHG Reporting

Using data collected by the Contractor or by the District, required for recordkeeping and reporting in accordance with the WCL GHG Monitoring Plan, the Contractor will coordinate with the District and shall prepare the GHG emissions report for electronic submittal using the Electronic Greenhouse Gas Reporting Tool (e-GGRT). It is anticipated that the GHG Report for the 2011 calendar year (January 1 through December 31) will be due in March 2012. The Contractor shall prepare a draft submittal for the District's review no later than 10 business days prior to the submittal deadline. Following incorporation of the District's comments, the Contractor shall file the GHG emissions report via e-GGRT with required certifications.

Task 7 – Initial Annual Report

In accordance with §60.757(f)(1-6), §60.757(g)(1-6), and §63.1980(a), the Contractor shall prepare an Initial Annual Report for submittal to the UDAQ and EPA Region 8 containing performance and monitoring data for the operation of the GCCS. The requirements under the Initial Annual Report are as follows:

1. Initial Performance Test Report as required by §60.8 and §60.757(g)(1-6) which includes:
 - 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;
 - 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;

- The documentation of the presence of asbestos or non-degradable material for each area from which collection wells have been excluded based on the presence of asbestos or non-degradable material;
 - The sum of the gas generation flow rates for all areas from which collection wells have been excluded based on non-productivity and the calculations of gas generation flow rate for each excluded area;
 - 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
 - The provisions for the control of off-site migration.
2. Value and length of time for exceedance of parameters monitored under §60.756(a), (b), (c), and (d) which include:
- Monthly recording of gauge pressure at all wellheads, all wells must operate under negative pressure conditions;
 - Monthly monitoring of oxygen or nitrogen concentrations at all wellheads, oxygen must be less than 5 percent or nitrogen must be less than 20 percent;
 - Monthly monitoring of temperatures at all wellheads, temperature must be less than 55°C (131°F);
 - Report all 3-hour averaging block of numerical continuous parameter (i.e., combustion temperature) monitoring data containing at least one hour of invalid data. A valid hour of data must have measured values for at least three 15-minute monitoring periods within the hour. Data collected during any of the events described in 40 CFR §63.1975 (monitoring system breakdowns, repairs, calibration checks; control device startup, shutdowns and malfunctions) are not to be included in any 3-hour averaging block (40 CFR §63.1955 – 40 CFR §63.1975);
3. Description and duration of all periods when the control device was not operating for greater than one hour and the length of time that the device was not operating;
4. All periods greater than five (5) days when the collection system was not operating;
5. The location and concentration of all surface emission exceedances (greater than 500 ppm above background); and
6. The date of installation and location of all wells or system expansions as the result of monitoring exceedances.

The Initial Annual Report (Report) is due within 180 days of GCCS startup, or by April 12, 2012. The Contractor shall submit a draft of the Report no later than 15 working days prior to the due date such that the District may review and comment on the Report. Following

incorporation of the District's comments, the Contractor shall submit one final copy of the Report to the UDAQ and to the USEPA Region 8 offices signed by the WCL Responsible Official.

EXPERIENCE AND QUALIFICATIONS

Qualified contractors will have provided GCCS O&M and Reporting Services for at least five (5) similar systems in the last three (3) years.

SITE WALK

There will be a mandatory site walk at **11:00 AM Mountain Daylight Time (MDT)** on November 1, 2011. Interested respondents shall meet at the WCL offices at 325 North Landfill Road, Washington, Utah.

PROPOSAL FORMAT AND CONTENTS

Proposals shall be submitted inclusive of the following items:

- Name of firm and location of key personnel relative to the project;
- Approach to the proposed scope of work;
- Proof of Insurance;
- A Scope and Cost Estimate for each project task; and
- Labor and equipment Rate Schedule as requested herein.

QUESTIONS AND DUE DATE

Questions may be directed to the District Manager, Neil Schwendiman, listed below. Questions are due by **5:00 PM MDT November 3, 2011**.

The District will receive proposals until **5:00 PM Mountain Standard Time (MST), November 8, 2011**. Bids received after this time may not be accepted. Bids will not be opened publicly.

Proposals shall be submitted to the District's representative at the following address and email address. Emailed proposals are acceptable and will be followed by a return receipt email of receiving it:

Mr. Neil Schwendiman
325 N Landfill Road
Washington, Utah 84780
(435) 673-2813
wcs@hi-speed.us

The District will review the proposals and intends to notify the successful bidder within approximately ten (10) calendar days of the proposal due date. The District reserves the right

to reject any or all proposals for any reason. The apparent low bidder will not necessarily be the successful bidder. The successful bidder may be selected on a basis of criteria other than bid price, including without limitation, past experience and performance, project approach, and references.

EXAMINATION OF DOCUMENTS

Documents available for review and considered part of this RFP include:

- WCL GCCS O&M Manual;
- LFG Specialties Utility Flare O&M Manual;
- Republic Services Group, Inc. LFG Management Standard Operating Procedures;
- WCL SSM Plan;
- WCL GHG Plan;
- WCL Title V Permit Number 5300053002; and
- WCL AO DAQE-AN0119790002-11.

Request for review or copy of these documents shall be made to Neil Schwendiman.

DURATION, TERMS, AND CONDITIONS/APPROVAL

The duration of work shall be 12 months from the District's notice to proceed. This work will be conducted in accordance with the District's procurement procedures.

Thank you for your interest in this project.

WCSW Special Service District No. 1

Neil Schwendiman
District Manager