



City of Grand Island

Tuesday, April 24, 2007

Council Session

Item G7

#2007-90 - Approving Agreement for Consulting Services for Tier II Emission Rate Testing at the Solid Waste Landfill

Staff Contact: Steve Riehle, City Engineer/Public Works Director

Council Agenda Memo

From: Steven P. Riehle, Public Works Director

Meeting: April 24, 2007

Subject: Approving Proposal to Conduct Tier II Emission Rate Testing at the Grand Island Landfill

Item #'s: G-7

Presenter(s): Steven P. Riehle, Public Works Director

Background

Tier II Non-Methane Organic Compounds (NMOC) emission rate testing must be performed at the landfill every 5 years. The testing is an EPA requirement that was included in a 1990 Amendment to the Clean Air Act. The last time testing at the Landfill was performed in 2002.

Requests for proposals for engineering services related to Tier II emission rate testing were sent to seven firms and published in the Grand Island Independent on Wednesday, March 21, 2007.

Discussion

Four (4) proposals were received, opened, and reviewed on April 5, 2007.

<i>Proposer</i>	<i>Exceptions</i>	<i>Proposal Amount</i>
Aquaterra Environmental Solutions, Inc. Omaha, Nebraska	None	\$16,054
HDR Engineering, Inc. Omaha, Nebraska	None	\$25,400
Milco Environmental Services, Inc. Kearney, Nebraska	None	\$18,840
EA Engineering Lincoln, Nebraska	None	\$22,495

Alternatives

It appears that the Council has the following alternatives concerning the issue at hand. The Council may:

1. Move to approve an agreement with Aquaterra Environmental Solutions, Inc. and authorize the mayor to execute the agreement.
2. Refer the issue to a Committee.
3. Postpone the issue to future date.
4. Take no action on the issue.

Recommendation

Administration recommends that the council approve a resolution approving an agreement with Aquaterra Environmental Solutions, Inc. of Omaha, Nebraska and authorizing the mayor to execute the agreement.

Sample Motion

Motion to approve the agreement with Aquaterra Environmental Solutions, Inc. of Omaha, Nebraska in the amount of \$16,054.00.

**AQUATERRA ENVIRONMENTAL SOLUTIONS, INC. (AQUATERRA) ---
TERMS AND CONDITIONS FOR PROFESSIONAL CONSULTING SERVICES**

1. **SCOPE OF SERVICES:** Aquaterra will perform the services set forth in the proposal for this project, of which these terms and conditions are a part. Initiation of services by Aquaterra will automatically incorporate these terms and conditions into this project.
2. **PAYMENTS:** Aquaterra will submit invoices to client monthly and a final bill upon completion of services. Time is of the essence in payment of invoices and timely payment is a material part of the consideration of this Agreement. Payment is due upon presentation of invoice and is past due 30 days from the date of invoice. Client agrees to pay a finance charge of one and one half percent per month on past due accounts. Client also agrees to pay all costs and expenses, including reasonable attorney fees incurred by Aquaterra relating to collection proceedings on overdue accounts. Failure of client to abide by the provisions of this section will be considered grounds for termination by Aquaterra.
3. **OWNERSHIP OF DOCUMENTS:** All documents prepared by Aquaterra are considered instruments of service, and shall remain the property of Aquaterra. Any reuse by client without written verification or adaptation by Aquaterra for the specific purpose intended will be at client's sole risk and without legal liability or exposure to Aquaterra.
4. **INSURANCE:** Aquaterra will maintain appropriate workers compensation/employers liability; automobile; general liability; and professional liability insurance coverages at all times. An insurance certificate will be provided upon request.
5. **INDEMNITY:** Aquaterra will indemnify client for a loss, damage or injury to the extent a loss, damage or injury is caused by the negligent errors or omissions of Aquaterra or any of its employees.
6. **LIMITATION OF LIABILITY:** Aquaterra and client agree to allocate certain risks so that Aquaterra's total aggregate liability to client is limited to \$50,000 or the fee for services, whichever is greater, and client hereby releases Aquaterra from any liability above such amount. This applies to any loss and all injuries, damages, claims or expenses, including attorneys' fees and expert witness fees, arising out of this Agreement from any cause or causes. Such causes include, but are not limited to, Aquaterra's negligence, errors, omissions, strict liability, statutory liability, breach of contract, breach of warranty, negligent misrepresentation, or other acts giving rise to liability based upon contract, tort or statute.
7. **SAFETY:** Aquaterra is not responsible or liable for injuries or damages incurred by third parties who are not employees of Aquaterra. It is agreed that Aquaterra is not responsible for job or site safety on this project. Job site safety in, on or about the site is the sole and exclusive responsibility of the contractor.
8. **THIRD PARTY RELIANCE:** All documents produced by Aquaterra are for client's use only. At client's request, Aquaterra may provide a letter authorizing limited reliance on certain documents by a third party, but only if the third party agrees to be bound by the terms and conditions in this Agreement between Aquaterra and client.
9. **UTILITIES AND SUBTERRANEAN STRUCTURES:** Aquaterra will take reasonable precautions to avoid causing damage to utilities and subterranean structures. Aquaterra is not responsible for any loss, damage or injury arising from damage to, or contact with, any utilities or subterranean structures that were not properly called to Aquaterra's attention, were not properly located on drawings, or was caused by the providing of inaccurate or incomplete information regarding their location.

10. **CHANGED CONDITIONS:** If, during the performance of this Agreement, unexpected conditions or circumstances are discovered, Aquaterra will notify client and the parties will renegotiate the scope and price. Aquaterra and client will promptly and in good faith enter into a renegotiation process. If renegotiated terms cannot be agreed to, Aquaterra will have the right to terminate this Agreement without penalty.
11. **DISPUTES:** If a dispute arises, Aquaterra and client agree that they will make a reasonable, good faith effort to resolve the dispute prior to either commencing legal action. The parties agree to meet, on multiple occasions if necessary, with senior management who are authorized to act on their behalf participating.
12. **TESTING AND OBSERVATION SERVICES:** This section will apply if Aquaterra is hired by client to provide a site representative for the purpose of testing or observing specific portions of the work. This work will not include supervision or direction of the actual work of any contractors, their employees or agents. We will observe the portion of the work we have been hired for and perform tests, the results being delivered to client, or others if directed by client. Even with very careful field testing and observation, client understands that field testing and observation is conducted to reduce, not eliminate, the risk of problems arising and that providing these services does not create a warranty or guarantee of any type.
13. **SOIL BORING AND TEST LOCATIONS:** The accuracy of test locations and elevations will be commensurate only with pacing and approximate measurements or estimates. Client must hire a professional surveyor if greater accuracy is required or desired. Aquaterra reserves the right to deviate a reasonable distance from the boring and test locations unless this right is specifically revoked in writing.
14. **ON SITE SERVICES:** Project site visits by Aquaterra, or the furnishing of employees to work on the project, will not make Aquaterra responsible for construction means, methods, techniques or procedures; or for any construction contractor's failure to perform its work in accordance with the drawings and specifications.
15. **TERMINATION:** Services may be terminated by Aquaterra or client by providing 7 days written notice in the event of substantial failure to perform in accordance with the terms herein. Client shall pay Aquaterra all amounts due for all services properly rendered and expenses incurred to the date of receipt of notice of termination, plus reasonable costs incurred by Aquaterra in terminating the services.
16. **SEVERABILITY:** If any provision contained in this Agreement is held illegal, invalid or unenforceable, the enforceability of the remaining provisions will not be impaired.
17. **GENERAL RESPONSIBILITIES OF CLIENT:** Client will, within a reasonable period of time, so as not to delay the services of Aquaterra: place at Aquaterra's disposal all available information pertinent to the project; Aquaterra may rely on the information provided as being accurate without independent verification; client will provide prompt written notice to Aquaterra whenever client observes or otherwise becomes aware of any defect in Aquaterra's services; and client will arrange for access to public and private property as required for Aquaterra to provide its services.
18. **ENTIRE AGREEMENT—PRECEDENCE:** These terms and conditions and Aquaterra proposal/report contain the entire agreement between Aquaterra and client relative to the scope of services. All previous or contemporaneous agreements, representations, promises and conditions relating to Aquaterra services are superceded. Since terms contained in purchase orders do not generally apply to professional services, in the event client issues to Aquaterra a purchase order, no preprinted terms thereon will become part of this Agreement. Said purchase order document, whether or not signed by Aquaterra, shall be considered a document for client's internal management of its operations.

NOTICE-TO-PROCEED
Engineering Services Related to Emission Rate Testing (Tier II)
at the Solid Waste Landfill
City of Grand Island, Nebraska
Aquaterra Proposal dated
April 3, 2007

I (we) understand and accept the above proposal.

ENGINEER: Aquaterra Environmental Solutions, Inc.	
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BY: Douglas L. Doerr, P.E. Principal	
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CLIENT: City of Grand Island, Nebraska	
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AGREED TO DATE:	
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PRINTED NAME/TITLE:	SIGNATURE:
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4.0 SCOPE OF WORK AND APPROACH

4.1 Prepare Tier II NMOC Sampling and Analysis Plan

Aquaterra will prepare a Tier II NMOC Sampling and Analysis Work Plan for review by the City of Grand Island and the NDEQ. The work plan will include a detailed discussion of the proposed approach to the project including field methods, sampling procedures and protocols, landfill gas sample composite schemes, and sample handling and chain-of-custody procedures.

In preparing the work plan, Aquaterra will coordinate with the landfill personnel to obtain information regarding the actual surface area of the Old landfill and the current Subtitle D landfill in which the waste is older than two (2) years. Aquaterra understands that during the previous Tier II NMOC testing, performed in 2002, samples were collected from approximately 20 acres of the old landfill and 22 acres of the existing Subtitle D facility. Therefore, this proposal and the work plan will be based on a minimum of 42 acres of landfill surface in addition to the landfill surface area that has become applicable to the Tier II testing requirements since 2002. A minimum of 2 sample probes per hectare (4 probes per every 5 acres) as required by 40 CFR 60.754(a)(3) will be installed as part of the sampling plan.

4.2 Install Probes and Collect Landfill Gas Samples

Aquaterra will use our company-owned, direct-push, track-mounted Geoprobe® to drive a regulatory required minimum of 34 monitoring probes (assuming samples collected over 42 acres) to a depth of approximately three (3) feet below the bottom of the landfill cover into the deposited waste. We understand that a total of 50 probes were previously advanced in 2002, and for comparison purposes, please note that Aquaterra is prepared to advance up to a total of 50 probes as part of our proposed work effort. We expect that the total number will be jointly decided by the City of Grand Island and Aquaterra as part of the previous task. Typically, to minimize disturbance to the in-place cover, Aquaterra only collects the regulatory required number of samples.

Probes will be located in a grid pattern over the active and old landfills in a relatively uniform manner in order to collect a statistically representative composite sample. In general accordance with the field sampling protocol outlined in EPA Method 25C – Determination of NMOC in Landfill Gases, a re-useable stainless steel probe will be driven approximately three (3) feet into the waste. The probe is sealed from the surface and a landfill gas sample is extracted through the probe for analytical laboratory testing. Following sample collection, the probe rod will be extracted and a bentonite clay seal will be placed in the probe penetration. An alternative to this is to use a 14-inch long stainless steel probe inserted through a probe rod and attached to Teflon tubing. The probe and tubing is then sealed in place from the surface with hydrated bentonite. The Teflon tubing will extend beyond the ground surface for sampling.

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One (1) landfill gas sample will be collected from each of the monitoring probes in general accordance with EPA Method 25C referenced above. Field readings will be recorded at the time of sample collection. These readings will include gas composition using a Landtec GEM 2000 and/or Landtec GEM 500 gas meter (oxygen and nitrogen or balance gas), pressure, and flow rate. Following purging and field screening activities, a minimum of 1 liter of landfill gas will be collected.

Aquaterra anticipates that the landfill gas samples will be field composited between a 3-to-1 and 5-to-1 ratio of equal volumes; depending on the total number of probes. The composite samples will be collected in 6-liter summa canisters and transported via express delivery to a third party accredited laboratory; under contract to Aquaterra. Samples will be submitted to the laboratory following standard Aquaterra chain-of-custody procedures.

4.3 Laboratory Analysis

Composite landfill gas samples will be analyzed for Total Gaseous NMOC using EPA Method 25C (triplicate injection). In addition to the NMOC analysis, the percent oxygen, nitrogen, carbon dioxide and methane will be determined using EPA Method 3C (duplicate injection).

The presence of nitrogen and oxygen indicate infiltration of ambient air into the landfill gas sample. If the concentration of nitrogen and oxygen are greater than 20 percent and 5 percent, respectively, the sample is unacceptable. For this reason, Aquaterra will assure that additional samples are collected at the time of the field activities to avoid the potential need to return to the site should any samples be deemed unacceptable.

4.4 Calculate Emission Rate and Prepare Tier II Report

Following receipt of the laboratory analytical results, an average NMOC concentration reported, as NMOC (as hexane), will be calculated and the NMOC emission rate re-calculated using the site specific NMOC concentration data. Aquaterra will use the USEPA Landfill Gas Emissions Model Version 3.02 (LandGEM Model) to model landfill emissions over time and will prepare a Tier II analysis report for the City's submittal to the NDEQ. The Tier II NMOC Emission Rate Report will include a summary of the testing activities, field observations, QA/QC, analytical results, conclusions and recommendations.

5.0 PROPOSED SCHEDULE AND FEE

Aquaterra understands from the RFP that the City of Grand Island is requesting that all scope elements performed under this contract be completed no later than August 1, 2007. Assuming receipt of Notice-to-Proceed by the RFP anticipated date of April 25, 2007, Aquaterra is confident that we can satisfy the work scope on or before the desired deadline. In fact, we would expect, based on similar project experiences, to complete the scope elements in accordance with the following timeline:

Scope Element	Comments	Estimated Completion Time
Prepare Work Plan	This task will be initiated upon notice to proceed and receipt of City provided information.	1 Week
City and NDEQ Review of Work Plan	This not under the control of Aquaterra.	1 Week
Revision of Work Plan (if necessary)	This task can be initiated following receipt of review comments from the City and NDEQ.	1 Week
City and NDEQ Final Review of Work Plan (if necessary)	This is not under the control of Aquaterra.	1 Week
Field Activities	This task can be initiated following approval of work plan by the City and NDEQ.	2 Weeks
Sample Analysis	This task can be initiated following completion of sample collection.	2 Weeks
Report Preparation	This task can be initiated following receipt of laboratory analytical results.	2 Weeks
Total Estimated Completion Time = 10 Weeks		

Aquaterra proposes to perform the scope of services detailed in the proposal for a lump sum fee of **\$16,054**. This fee includes all labor, materials, and analytical costs necessary to complete the scope of services. We have included a detailed cost estimate in **Attachment 2** which fully develops our costing approach and assumptions. Please note that our lump sum fee of **\$16,054** represents a 15% reduction from the detailed cost estimate in **Attachment 2**. This one time reduction in fee is being offered as we recognize that we do not have experience directly with the City of Grand Island. Our hope is that this reduction of fee, combined with our extensive amount of related experience, will overcome the lack of evaluation points received for direct experience with the City of Grand Island. We have also included as **Attachment 3**, as required, an example of our standard Terms and Conditions.

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6.0 REFERENCES

Aquaterra is proud of our work and our relationship with our clients. Many of our clients have followed our staff throughout their careers and we strongly encourage you to contact our references for additional information regarding the services provided by Aquaterra. Additional references can be made available if necessary.

City of Lincoln, NE
Ms. Karla Welding
Superintendent of Solid Waste Operations
2400 Theresa Street
Lincoln, NE 68521
(402) 441-7867

City of Springfield, MO
Mr. Doug Durrington
Brownfields / Solid Waste Program Engineer
PO Box 8368
840 Booneville Avenue
Springfield, MO 65801
(417) 864-2004

RESOLUTION 2007-90

WHEREAS, the City of Grand Island invited proposals for Consulting Services for Tier II Emission Rate Testing at the Solid Waste Landfill in accordance with a Request for Proposals on file with the Public Works Department; and

WHEREAS, four proposals were received, reviewed and evaluated in accordance with established criteria on April 5, 2007; and

WHEREAS, Aquaterra Environmental Solutions, Inc., of Omaha, Nebraska, submitted a proposal in accordance with the terms of the request for proposals and all statutory requirements contained therein and the City Procurement Code, such proposal being for costs in the amount of \$16,054.00.

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND COUNCIL OF THE CITY OF GRAND ISLAND, NEBRASKA, that the proposal of Aquaterra Environmental Solutions, Inc., of Omaha, Nebraska, for consulting services for Tier II Emission Rate Testing at the Solid Waste Landfill for \$16,054.00 is hereby approved.

BE IT FURTHER RESOLVED, that the Mayor is hereby authorized and directed to execute an agreement for such services on behalf of the City of Grand Island.

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Adopted by the City Council of the City of Grand Island, Nebraska, April 24, 2007.

Margaret Hornady, Mayor

Attest:

RaNae Edwards, City Clerk

Approved as to Form	☐ _____
April 19, 2007	☐ City Attorney