

**FORM # 3**  
**FORM FOR REQUESTING AN APPEAL HEARING**  
**BEFORE THE NEVADA STATE ENVIRONMENTAL COMMISSION**

**PLEASE HOLD IN ABEYANCE DURING FURTHER NEGOTIATIONS**

1. Name, address, telephone number, and signature of applicant:

**William Carr, District Manager**  
**Refuse, Inc.**  
**2401 Canyon Way, Sparks, NV 89434**  
**(775) 342-0401 x200**  
**WCarr@wm.com**

**RECEIVED**

MAY 23 2011

ENVIRONMENTAL PROTECTION

Signature: \_\_\_\_\_

Representative Capacity (if applicable): District Manager

2. Specify type of applicant: Individual, Partnership, Corporation, or Other: Corporation
3. Other person or persons authorized to receive service of notice:

**Andrew M. Kenefick**  
**Senior Legal Counsel**  
**Waste Management**  
**Western Group Legal Department**  
**801 2nd Avenue, Suite 614**  
**Seattle, WA 98104**  
**206-264-3062 (direct)**  
**866-863-7961 (direct fax-toll free)**  
**akenefick@wm.com**

4. Complete description of the business or activity and the location of the activity involved in the request:

**Applicant owns and operates the Lockwood Regional Landfill (the Landfill) located at 2401 Canyon Way, Sparks Nevada, in Storey County. The Landfill is a permitted solid waste landfill that receives municipal solid waste (MSW) and other permitted wastes. In early 2009, the Landfill installed a gas collection and control system (GCCS) for collecting and controlling the emissions of landfill gas generated by the degradation of waste in the Landfill. The GCCS consists of vertical gas extraction wells, horizontal collectors, associated above ground and underground collection piping, a condensate collection system, and a gas treatment facility. The generated landfill gas (LFG) is captured through the extraction wells and sent to the treatment facility. Currently, the LFG is combusted by a flaring system pursuant to its permits and state and federal regulations. Use of the flare does not generate any energy.**

While MSW landfills can collect and combust LFG by using flares, it is also possible to route LFG to internal combustion engines that will generate energy. The applicant has proposed to construct and operate up to three 2,333 horsepower Caterpillar Internal Combustion Engines (Model G3520C) for the combustion of LFG and generation of up to 4.8 MW of renewable electricity. In order to proceed with the design, construction, and operation of this LFG-to-energy (LFGTE) project, Refuse, Inc. applied for a construction permit and a revision to its Class I (Title V) Air Operating Permit AP4953-1148.01.

5. Nature of the appeal and grounds thereof:

By letter drafted May 12, 2011, the Nevada Division of Environmental Protection – Bureau of Air Pollution Control (NBAPC) issued its Revised Class 1 (Title V) Air Operating Permit AP4953-1148.01 (the “Air Permit”), which included provisions authorizing the construction and operation of the three internal combustion engines. The Air Permit, however, included requirements that the Landfill must install and operate a continuous emission monitoring systems (CEMS) to continuously monitor emissions of carbon monoxide (CO) and nitrogen oxides (NO<sub>x</sub>). Refuse, Inc. is appealing all conditions of the Air Permit that require the installation and use of the CEMS for the LFGTE engines. Those conditions (referred to herein as “CEMS-Related Conditions”), include, but are not limited to, the following sections of the Air Permit:

- Section VI.I.4(l)-(p)
- Section VI.I.4(s)
- Section VII.A.2(d)
- Section VII.A.2(g)
- Any and all other related permit conditions that reference, relate to, or include a requirement to install and operate the CEMS units.

The Applicant is appealing these CEMS-Related Conditions on the grounds that they are beyond the statutory and/or regulatory authority of the NBAPC, arbitrary and capricious, unduly costly and burdensome, unreasonable, and without legal or technical basis in the administrative record. Without limiting the grounds for this appeal, Applicant has identified the following bases for the appeal and reserves the right to assert additional bases prior to or during the hearing on this matter:

- a. There is no regulatory authority that specifically requires CEMS for LFGTE projects. Moreover, virtually all LFG combustion engines are not required to install CEMS units. For the hundreds of LFGTE facilities throughout the United States that are operational, Refuse, Inc. is aware of only one jurisdiction, the South Coast Air Quality Management District (SCAQMD), that requires CEMS, which are specifically required by Rule 1110.2 included in its rules (NO<sub>x</sub> only).
- b. There is no technically sound basis for requiring CEMS units on LFG IC engines. These engines run on a consistent basis because of the steady flow of LFG and the electronic controls that allow for automatic adjustments to maintain steady-state conditions. As such, emissions change very slowly over time, making a CEMS unwarranted and unnecessary to assess emissions on a

continuous basis. Continuously-recorded data will not provide any additional compliance information that would not be captured during annual source tests and other required monitoring and calibration, which are more than sufficient to detect any emission issues.

- c. **CEMS units are not well-suited for monitoring LFG combustion engines. Waste Management operates several CEMS on LFG-fired engines in the SCAQMD, and we have encountered various operational issues attributable to the CEMS when used for monitoring LFG-fired equipment, as opposed to a clean fuel (e.g., natural gas) for which the CEMS units were designed. The LFG exhaust stream consists of acid vapors, SO<sub>2</sub>, and siloxanes, which often cause extremely sensitive pieces of equipment like a CEMS to shutdown and/or malfunction. This has increased the operational cost of the CEMS units, required more frequent maintenance and repair, and has led to inconsistent data. While NBAPC staff, in their May 12, 2011 response to prior comments, discounted this problem, Refuse, Inc. is not aware of the basis for such a conclusion, given that there are no LFG-fired engines equipped with CEMS operating in Nevada or permitted by NBAPC.**
- d. **Alternative monitoring equipment will yield reliable data that will be sufficient to ensure compliance. Under NAC 445B.3405(1)(c), permits must contain “requirements for monitoring that are sufficient to ensure compliance with the conditions of the operating permit, including: ... (2) ... periodic monitoring that is sufficient to yield reliable data from the relevant period which is representative of the stationary source’s compliance with the conditions of the operating permit.” As previously proposed on April 21, 2011 to NBAPC staff, there are reasonable alternatives for compliance monitoring, as annual stack testing and handheld emissions monitoring. The vast majority of all LFGTE installations require only annual stack testing to determine emissions compliance and continuous monitoring/recording of operating hours, power output and flow. Using this data, LFGTE plant operators can calculate running totals of all emission parameters. Annual stack testing is also required by the IC engine NSPS rule (40 CFR Part 60, Subpart JJJJ), and thus has been deemed sufficient for compliance purposes by EPA.**
- e. **The CEMS requirement is an overly burdensome monitoring, recordkeeping, and reporting requirement and extremely cost-prohibitive for a small-scale, Renewable Energy facility such as the three-engine facility intended for the Landfill. A NO<sub>x</sub> and CO CEMS for each of the three engines will represent up to \$550,000 in capital costs and approximately \$50,000 in annual operating costs. This cost represents approximately 25% of the capital costs for the engines themselves. Costs of these magnitudes will render LFGTE projects financially unworkable and will jeopardize the viability of the Lockwood project as well as other LFGTE projects that may be under consideration elsewhere in Nevada.**
- f. **The CEMS requirement will jeopardize this project, which Refuse, Inc. believes is an important project that will benefit the State’s prioritization of renewable energy projects and the reduction of greenhouse gases. This project will be the first such project within NBAPC’s jurisdiction. It will provide 4.8 megawatts of Renewable Energy and greenhouse gas (GHG) benefits of over 23,000 metric**

tons of carbon dioxide equivalent per year (per EPA) as well as create jobs and prevent the loss of a valuable fuel stream that is currently being flared.

- g. Refuse, Inc. also asserts that NBAPC did not adequately consider and address the prior comments that the company submitted. Copies of those comments are attached hereto and incorporated herein by this reference.

Based on the grounds set forth above and such other grounds and evidence as may be presented at the hearing, Refuse, Inc. respectfully requests that the State Environmental Commission modify the Air Permit by deleting the requirement to install and operate the CEMS units and by revising all conditions directly referencing those conditions to conform to the deletion of those conditions.

6. Section or sections of the State Air Quality Regulations, Water Pollution Control Regulations, Hazardous Waste Regulations, Solid Waste Management Regulations, or NRS section involved in the appeal

This appeal will involve certain sections of the State Air Quality Regulations including, but not limited to, the specific regulations cited in the Air Permit conditions identified above and appealed herein. Without limiting the prior sentence, Applicant states that the following state and federal regulations are involved in this appeal:

- NAC 445B.252.
- NAC 445B.256.
- NAC 445B.257.
- NAC 445B.259.
- NAC 445B.261.
- 40 CFR Part 52, Appendix E.
- 40 CFR Part 60, Appendix B.
- 40 CFR Part 60, Appendix F.

7. Approximate time in hours and minutes necessary for delivery of oral testimony and reading of prepared statements as admissible evidence to be entered in the record: 3 hours

Date of Request: May 23, 2011

Attachments: Comment Letters

Send Form To: John B. Walker, State Environmental Commission, 901 South Stewart Street, Suite 4001, Carson City, NV 89701-5249.