



Via FedEx Delivery

January 14, 2011

Breanne Potter, Assistance Commission Secretary
Public Utilities Commission of Nevada
1150 East William Street
Carson City, Nevada 89701

Re: Application of Refuse, Inc., a Nevada Corporation, for a Permit to Construct the Lockwood Landfill Gas to Energy Project under the Utility Environmental Protection Act ("UEPA").

Dear Ms. Potter:

Enclosed for filing is the original copy of the aforementioned filing. This application provides notice of the federal agency filing related to the request for a Permit to Construct pursuant to NRS 704.870(2)(a).

The documents accompanying this Application are:

- 1. Draft Public Notice of the Application;
2. Initial UEPA Application for a Permit to Construct;
3. Exhibit A - Lockwood Regional Permit Number: SW214R01;
4. Exhibit B - Figure 1a Map Showing Location of Lockwood Landfill;
5. Exhibit C - Site Plan;
6. Exhibit D - Proposed Lockwood Landfill Gas to Energy Project Plan;
7. Exhibit E - Permit Applications and Permits Received; and
8. Exhibit F - Copy of the Public Notice and Affidavit of Publication
9. Proof of Service (see Certificate of Service List); and a
10. Check for the filing fee in the amount of \$200.

If you have any questions about this filing, please contact me.

Sincerely,

Refuse, Inc.

By: [Signature]
William Carr, P.E., District Manager, Lockwood Landfill
Tel: (775) 342-0401, ext. 200

WASTE MANAGEMENT OF NEVADA

Administrative Offices
Disposal Maintenance
100 Vassar Street
Reno, Nevada 89502
(775) 329-8822
(775) 329-4662 (fax)

Reno Disposal Company
100 Vassar Street
Reno, Nevada 89502

Sparks Sanitation Company
100 Vassar Street
Reno, Nevada 89502

B & L Disposal Company
100 Vassar Street
Reno, Nevada 89502

Independent Sanitation Company
100 Vassar Street
Reno, Nevada 89502

RSW Recycling
100 Vassar Street
Reno, Nevada 89502

Refuse, Inc.
100 Vassar Street
Reno, Nevada 89502

Lockwood Regional Landfill
2401 Canyon Way
Lockwood, Nevada 89434

Incline Sanitation Company
1076 Tahoe Blvd.
Incline Village, Nevada 89451
(775) 831-2971

Capital Sanitation Company
202 E. Washington Street
Carson City, Nevada 89701
(775) 882-3380

Fernley Disposal Company
Churchill County Refuse Service
1100 Hwy 95A
Fernley, Nevada 89408
(775) 575-4964

Feather River Disposal
1166 Industrial Way
Quincy, California 95971
(530) 283-2065

Lassen Waste Systems
125 South Lassen Street
Susanville, California 96130-4321
(530) 257-3553

Alturas Disposal
335 No. Main Street
Alturas, California 96101
(530) 233-2373

**REFUSE, INC.**

INITIAL<sup>1</sup>  
UEPA APPLICATION FOR A PERMIT TO CONSTRUCT

**LOCKWOOD LANDFILL  
GAS TO ENERGY PROJECT**

William Carr, P.E., District Manager  
**REFUSE, INC.**  
Lockwood Regional Landfill  
2401 Canyon Way  
Sparks, Nevada 89434  
(775) 342-0401, ext. 200

<sup>1</sup> Under NRS 704.870(2)(a), if a federal agency is required to conduct an environmental analysis of a proposed utility facility, the utility is required to also file an application with the Commission that provides notice of the federal filing. This initial UEPA application serves such notice.

**REFUSE, INC.**  
**APPLICATION FOR PERMIT TO CONSTRUCT A UTILITY FACILITY**  
**Pursuant to the Utility Environmental Protection Act (UEPA)**  
**NAC 703.423**

I. DESCRIPTION OF location:

- A. A general description of the location of the proposed utility facility, including a regional map that identifies the location of the proposed utility facility.

The proposed LFGTE project is located at the LRL in a mountainous region within the northern limits of the Virginia Range, approximately 8 miles east of Reno-Sparks in Storey County, Nevada. The landfill encompasses approximately 1,139 acres, contiguous to the Lockwood Regional Landfill.

The Project Location Map (Exhibit B), shows the general location of the proposed utility Facility and the Project Plan (Exhibit C) shows the extent of the LRL as well as the location and configuration of LFGTE equipment.

- B. A legal description of the site of the proposed utility facility, with the exception of electric lines, gas transmission lines, and water and wastewater lines, for which only a detailed description of the site is required.

A legal description of the LRL Property is as follows:

A tract of land situated in Sections 11, 14, 15, 22, and 23, Township 19 , Range 21 East, M.D.M., Storey County, Nevada and being more particularly described as follows:

Beginning at the Southeast corner of said Section 14, said Southeast corner being the Northeast corner of the Lockwood Landfill Boundary as depicted on the Record of Survey for Refuse, Inc., recorded January 21, 1994, Official Record of Storey County, Nevada as File Number 73197 and also the Southeast corner of Parcel B as depicted on the Parcel Map for Storey County Properties, recorded March 20, 1992, Official Records of Storey County as File Number 69183;

Thence along the East line of said Section 14, North 00° 30' 42" East a distance of 5,371.94 feet to the Northeast corner of said Section 14, being the Northeast corner of said Parcel B and the Southeast corner of Parcel A of said Parcel Map;

Thence along the East line of the Southeast quarter of said Section 11 and the East fine of said Parcel A, North 00° 41' 35" East a distance of 1,449.88 feet;

Thence along the East line of the Northeast quarter of said Section 11, North 00° 41' 35" East a distance of 12.10 feet to the intersection with a steel tower power line known as the Valmy - Mira Loma 345 KV line as described in that certain document

filed March 6, 1981, Official Records of Storey County, Nevada as File Number 48746;

Thence leaving said East line and along the said steel tower power line South 52° 01' 53" West a distance of 8,535.00 feet to the intersection of the centerline of Hafed Road;

Thence leaving said steel tower power line and along the centerline of said Hafed Road the following courses and distances;

1. South 20° 21' 0" West a distance of 208.96 feet;
2. Thence along the arc of a curve to the right having a radius of 700.00 feet, a central angle of 37° 39' 42", a distance of 460.12 feet;
3. South 58° 00' 45" West a distance of 1,205.63 feet;
4. Thence along the arc of a curve to the left having a radius of 500.00 feet, a central angle of 23° 30' 37", a distance of 205.17 feet;
5. South 34° 30' 08" West a distance of 676.09 feet;
6. Thence along the arc of a curve to the right having a radius of 500.00 feet, a central angle of 57° 57' 05", a distance of 505.72 feet;
7. North 87° 32' 47" West a distance of 214.59 feet;
8. Thence along the arc of a curve to the left having a radius of 500.00 feet, a central angle of 105° 16' 25", a distance of 918.69 feet;
9. South 12° 49' 12" East a distance of 1,166.47 feet;
10. Thence along the arc of a curve to the left having a radius of 600 feet, a central angle of 19° 40' 18", a distance of 206.00 feet;
11. South 32° 29' 30" East a distance of 651.06 feet;
12. Thence along the arc of a curve to the left having a radius of 400.00 feet, a central angle of 15° 40' 56", a distance of 109.48 feet to point on the Northerly boundary of the LRL as depicted on that Record of Survey for Refuse Inc., recorded January 21, 1994, Official Records of Storey County as File Number 73197;

Thence leaving said centerline of Hafed Road and along the northerly boundary line of said LRL the following courses and distances:

1. North 77° 02' 58" East a distance of 202.21 feet;
2. North 89° 50' 45" East a distance of 1,993.99 feet;
3. North 82° 37' 30" East a distance of 1,442.33 feet;
4. North 86° 46' 57" East a distance of 546.94 feet;
5. North 60° 06' 15" East a distance of 1,328.82 feet;
6. North 59° 12' 36" East a distance of 812.49 feet; and
7. North 59° 37' 23" East a distance of 3,425.14 feet to the Point Of Beginning.

The Property containing of approximately 1,139.15 acres.

Basis of bearing for this legal description is that Record of Survey for Refuse, Inc., recorded January 21, 1994, Official Records of Storey County, Nevada as File Number 731137.

The legal description was prepared by: Thomas A. Foote, PLS, Kennedy/Jenks Consultants, 5190 Nell Road, Suite 210, Reno, NV 89502

Within the area described by the legal description of the LRL, the proposed LFGTE project will occupy a portion of approximately 3/4 of an acre and will be located approximately 114 feet from the existing blower/flare station (see Exhibit C).

C. Appropriately scaled site plan drawings of the proposed utility facility, vicinity maps and routing maps.

The LFGTE project will be located approximately 114 feet northwest of the Blower/Flare Station as shown in Exhibit D, Figure 4. The footprint of the LFGTE is shown on Exhibit D, Figure 1 with a scaled drawing on Exhibit D Figure 2. Exhibit D Figure 3 provides the front and back elevation of the LFGTE building and components.

II. DESCRIPTION OF the proposed utility facility:

A. The size and nature of the proposed utility facility.

The project will use landfill gas (LFG) extracted from Lockwood Regional Landfill's existing LFG collection system and convert it into energy through various systematic thermal processes and a landfill gas power generator. The proposed LFGTE project will utilize a very small portion (14,279 sq. ft.) of the existing footprint of the recently expanded landfill.

The proposed LFGTE Facility would consist of a building, approximately 123 feet by 155 feet that will house three Caterpillar G3520C reciprocating engine generators with a total capacity to produce 3.2 megawatts of power. The project may also include a gas cleaning module. The Engines have a horsepower of 2,233 each, and will run 24 hours per day, 365 days, with a total runtime of 8,760 hours per year. The engines will have a fuel usage of 35,280 cubic feet per hour with a heat content of 17.82 MMBtu/hr. Each engine will be designed per Standard Industrial Classification (SIC) code 4931, and will be stationary. The Stack height will be 37 feet 8 inches with an inside diameter of 15.5 inches, with JSH-16X Silencers. The LFGTE will have a gas volume flow rate of 588 dry standard cubic feet per minute (scfpm) per engine, which will be measured by a flow recorder.

The LFGTE power plant will provide local electrical power to the landfill and to the energy grid. The layout of the LFGTE Facility is located on Exhibit D Figure 2 and 3 of Exhibit D.

B. The natural resources that will be used during the construction and operation of the proposed utility facility.

Water will be needed for the construction of the new LFGTE building. Water will be needed for the construction of the project. The LFGTE project will use approximately 10,000 gallons of water to construct the plant

During construction, oil and gas will be required for the operation of the equipment used to grade and construct the LFGTE building.

Once the LFGTE Facility is operational, the plant will burn methane gas from the landfill. The Facility will require a small amount of water for the normal operation of the facility, approximately 20 gallons per day for one employee, plus an additional 100 gallons per week for washing down equipment during the operation of the Facility which would be derived from the on-site supply.

C. Layout diagrams of the proposed utility facility and its associated equipment.

The layout of the LFGTE Facility is located on Exhibit D Figure 2 and 3 of Exhibit D.

D. Scaled diagrams of the structures at the proposed utility facility.

The LFGTE project will be located approximately 114 feet northwest of the Blower/Flare Station as shown in Exhibit D, Figure 4. The footprint of the LFGTE is shown on Exhibit D, Figure 1 with a scaled drawing on Exhibit D Figure 2. Exhibit D Figure 3 provides the front and back elevation of the LFGTE building and components.

E. A statement concerning whether the proposed utility facility is an electric generating plant or the associated facilities of an electric generating plant that uses renewable energy as its primary source of energy to generate electricity.

The proposed LFGTE project will utilize methane gas that is generated from the landfill operations and convert that gas to electricity. This will be accomplished by burning the methane using gas engines which produce electricity. Electricity generated through LFGTE processes will be used at the landfill with any excess sold to the power grid (Exhibit D Electrical Drawings).

III. COPY AND SUMMARY of any studies which have been made of the environmental impact of the proposed utility facility as required by subsection 1 of [NRS 704.870](#).

The proposed LFGTE project will utilize a very small portion (14,279 sq. ft.) of the existing footprint of the recently expanded landfill. Equipment will be located within already disturbed areas. Therefore, no additional natural resources will be disturbed through the construction of this project.

Summary of Studies:

Design Report, Lockwood Regional Landfill, Kennedy/Jenks Consultants, November 30, 1994

EMCON Associates, 1979. Geotechnical Investigation and Waste Management Studies, Lockwood Disposal Site, Storey County, Nevada. Prepared for Nevada Landfill Corporation, May 1979

Federal Emergency Management Agency (FEMA), 1993. Flood Insurance Rate Map, Storey County, Nevada (unincorporated areas), Panel 55 of 150, Community-Panel Number 3200330055 C. Map Revised July 19, 1993.

Great Basin Aerial Surveys, 1993. Assorted aerial photographs of the Lockwood Landfill and surrounding areas. Flown October 8, 1993.

Great Basin Aerial Surveys, 1993 and 1992. Topographic maps of the Lockwood Landfill Disposal Area and adjacent lands. Scale 1 inch equals 200 feet. October 1992 and October 1993.

Kennedy/Jenks/Chilton, 1987. Preliminary Water Investigations of the Mustang and Lockwood Landfill for Refuse, Inc. Report submitted to Refuse, Inc. 20 October 1987.

Kennedy/Jenks/Chilton, 1991. Siting Report and Environmental Monitoring Plan for the Lockwood Landfill, Storey County, Nevada. K/J/C 907006.12. Submitted to Refuse, Inc. 21 January 1991.

Kennedy/Jenks Consultants 1991. Semi-Annual Monitoring Report, 1991 First and Second Quarterly Sampling Events, Lockwood Landfill. Volumes 1 and 2. Submitted to Refuse, Inc. 29 July 1991.

Kennedy/Jenks Consultants 1994. Revised Hydrogeologic Report, Lockwood Landfill, Storey County, Nevada. K/J 937059.03. Submitted to Refuse, Inc. 16 June 1994.

Kennedy/Jenks Consultants 1994. Revised Operating Plan for the Lockwood Landfill, Storey County, Nevada. September 1994.

Klieforth, H. et al. 1983. Measurement, Tabulation and Analysis of Rain and Snowfall in the Truckee River Basin. Desert Research Institute Report to Regional Administrative Planning Agency, August 1983.

IV. DESCRIPTION OF any reasonable alternate locations for the proposed utility facility, a description of the comparative merits or detriments of each location submitted, and a statement of the reasons why the location is best suited for the proposed utility facility, as required by subsection 1 of [NRS 704.870](#).

Refuse, Inc. is unaware of project alternatives that would better serve the project purpose of utilizing methane generated at the existing landfill for the production of electricity. No other properties have been identified that are adjacent or within close proximity; geologically and hydrologically suitable; owned by Refuse, Inc. or available for purchase at reasonable cost; and reasonably, practically, and politically feasible to acquire, design, permit, construct, and operate. For the reasons stated in section 3 above, there are many benefits (and few costs) of utilizing the methane gas already being generated at LRL to create energy, including compelling arguments to locate the proposed LFGTE project at the existing landfill; conversely there are tremendous costs associated with alternatives with few benefits. Alternatives and their associated cost/benefit analysis are listed below.

Proposed LFGTE Project

Costs

1. Financial costs associated with construction, installation, permitting, and maintenance of the facility.

Benefits

1. Utilization of an existing, readily available, relatively clean, reliable, and inexpensive source of energy.
2. Reduced carbon footprint for on-Site development (i.e., no additional Site development or infrastructure required).
3. No additional land disturbances are required and therefore no loss or impacts to additional natural resources.
4. Reduced long-term greenhouse gas emissions since energy will be created without significant changes in existing facility greenhouse gas emissions and electricity will be supplied to the grid, thereby reducing the overall need for greenhouse producing fossil fuel based energy.
5. Reduced demand on existing fossil fuel based utility facilities, which reduces the need to develop and maintain additional high-cost fossil fuel utility facilities.
6. Potentially reduced cost of electricity to the consumer.
7. Provide 14 full time construction jobs for 6 months.
8. Provide 1 full time new Facility employee.



Alternative 1: No LFGTE Project

Costs

1. Opportunity cost associated with the loss of potential electricity generation over the lifetime of the landfill.
2. Opportunity cost associated with lost ability to reduce demand on existing fossil fuel based facilities and thereby effectively reduce demand to build and/or maintain additional energy facilities.
3. Opportunity cost associated with lost ability to reduce overall greenhouse gas emissions to the atmosphere.

Benefits

1. Financial cost savings of not installing the LFGTE system.

Alternative 2: Locate LFGTE Project at another Site Costs

1. Additional property would need to be acquired and methane gas transported to that property at high cost.
2. Property development costs (such as permitting, preparation of necessary environmental documents, infrastructure development, etc.) would be substantial.
3. Disturbance of previously undisturbed lands would potentially be required in order to develop a new Facility to house the LFGTE equipment and associated transportation mechanisms.
4. Increased carbon footprint associated with delivery of methane gas to an off-Site location.

- V. COPY OF the public notice of the application or amended application and proof of the publication of the public notice, as required by subsection 4 of [NRS 704.870](#).

The public notice was published in the Reno Gazette Journal on January 12 and 13, 2011. A copy of the public notice and affidavit is located in Exhibit F.

- VI. PROOF THAT a copy of the application or amended application has been submitted to the Nevada State Clearinghouse within the Department of Administration to enable agency review and comment.

The Certificate of Service list is part of the legal pleadings and is placed at the end of the filing.

VII. AN EXPLANATION of the nature of the probable effect on the environment.

A. A reference to any studies described in subsection 3.

Studies conducted during the permitting of the existing landfill are listed in Section III.

B. An environmental statement including:

1. The name, qualifications, professions and contact information of each person with primary responsibility for the preparation of the environmental statement;
2. The name, qualifications, professions and contact information of each person who has provided comments or input in the preparation of the environmental statement and;
3. A bibliography of materials used in the preparation of the environmental statement.

The proposed LFGTE expansion will not impact previously undisturbed lands. The proposed Site is currently permitted and operating as a landfill.

4. A description of:

- I. The environmental characteristics of the project area existing at the time the application or amended application is filed with the Commission.

The proposed LFGTE expansion will not impact previously undisturbed lands. The proposed Site is currently permitted and operating as a landfill.

The proposed LFGTE project will utilize a very small portion (14,279 sq. ft.) of the existing footprint of the recently expanded landfill. Equipment will be located within already disturbed areas. Therefore, no additional natural resources will be disturbed through the construction of this project.

- II. The environmental impacts that the construction and operation of the proposed utility facility will have on the project area before mitigation.

The proposed LFGTE expansion will not impact previously undisturbed lands. The proposed Site is currently permitted and operating as a landfill, therefore there will not be no environmental impacts before mitigation.

- III. The environmental impacts that the construction and operation of the proposed utility facility will have on the project area after mitigation.

The proposed LFGTE project will convert methane gas, which is typically burned off via flare at the Site, to usable electricity. Methane gas, which is currently converted to less harmful greenhouse gases through combustion,

releasing heat, carbon dioxide (CO<sub>2</sub>), CO and water vapor to the atmosphere, will be harnessed to generate electricity. Although the methane gas will still be burned, the heat created from the combustion process will be utilized to generate electricity, which will offset utility generated power from fossil fuels, thus creating additional greenhouse gas, criteria pollutant, and toxic emission reductions from the renewable energy. LFGTE

Emissions from the landfill will be controlled with 98% efficiency or 20 parts per million by volume (ppmv) as hexane at 3% oxygen, as an outlet concentration be the flare and IC engines. The amounts of Non-Methane Organic Compounds (NMOCs)/VOCs generated by the landfill are reduced after it goes through the flare and/or IC engines, and there will be no change in these emissions when using the engines.

The application represents an increase in nitrogen oxides (NO<sub>x</sub>) such that the site-wide total is less than 100 tons per year (tpy); therefore, the Facility is not a major source for NO<sub>x</sub>. The proposed IC engines emissions estimated are approximately 38.81 tpy of NO<sub>x</sub>; an increase from the existing site-wide of 43.51 tpy to a total of 82.32 tpy. This total and increase is less than the federal prevention of significant deterioration (PSD) trigger level of 250 tpy (Class I-B Operating Permit, 2010).

The application represents an increase in VOCs such that the site-wide total is more than 100 tpy; therefore, the Facility is a major source for VOCs. The application represents an increase in VOCs of approximately 11.23 tpy; an increase from the existing site-wide estimate of 102.75 tpy to a total of 113.98 tpy. Furthermore, the increase in NMOCs is approximately 11.23 tpy from the IC engines; an increase from the sitewide estimate of 254.84 tpy to a total of 262.32 tpy (Class I-B Operating Permit, 2010). The increase is less than the PSD significance level.

The Facility is already a major source of carbon monoxide (CO) since the site-wide emissions are greater than 100 tpy. The proposed IC engines emissions estimated are approximately 252.28 tpy of CO; an increase from the existing site-wide estimate of 112.95 to a total of 365.23 tpy. However, a cap of 249 tpy of CO has been requested on the Facility as a whole, thus capping emissions below the PSD trigger level.

The application represents an increase in SO<sub>x</sub> such that the site-wide total is more than 100 tpy; therefore the Facility is a major source for SO<sub>x</sub>. The proposed IC engines emissions estimated is approximately 38.56 tpy of SO<sub>x</sub>; an increase of from the existing site-wide estimate of 88.68 tpy to a total of 127.24 tpy. This increase is less than the PSD trigger level of 250 tpy.

The application represents an increase in PM-10 and PM emissions of 6.47 tpy per each pollutant since the PM emissions from the IC engines are due to

combustion and thus all PM-10. This brings the total non-fugitive PM-10 and PM emissions to 21.89 tpy and 25.79 tpy, respectively. The Facility is not considered a major source for PM-10 because the Facility is not located in a “serious” non-attainment area as defined in NAC 445B.094(3).

The Facility is a major source of emissions for VOCs, CO, SO<sub>x</sub>; but none of these causes, nor contributes, to a violation of Nevada or National AAQS as will be demonstrated with air modeling.

Water will be needed for the construction of the new LFGTE building. The LFGTE project will use approximately 10,000 gallons of water to construct the plant. During construction, oil and gas will be required for the operation of the equipment used to grade and construct the LFGTE building.

Once the LFGTE Facility is operational, the plant will burn methane gas from the landfill. The Facility will require a small amount of water for the normal operation of the facility, approximately 20 gallons per day for one employee, plus an additional 100 gallons per week for washing down equipment during the operation of the Facility which would be derived from the on-site supply.

VIII. UNLESS, PURSUANT TO paragraph (b) of subsection 1 of [NRS 704.890](#), the proposed utility facility is exempt from the requirement that the Commission find and determine the extent to which the proposed utility facility is needed to ensure reliable utility service to customers in this State, an explanation of the extent to which the proposed utility facility is needed to ensure reliable utility service to customers in this State including:

- a) If the proposed utility facility was approved in a resource plan or an amendment to a resource plan, a reference to the previous approval by the Commission; or
- b) If the proposed utility facility was not approved in a resource plan or an amendment to a resource plan, a description of the extent to which the proposed utility facility.

1. Provide utility service to customers in this State.

The new LFGTE Facility will run 24 hours a day, 365 days a year. This will provide an additional source of electricity to NV Energy and will enhance their current electrician power that is provided to the State. This provides a reliable backup to the current electricity that is being generated by NV Energy; therefore not only providing a reliable source of power to NV Energy, but utilizing the methane efficiently from the LRL.

2. Enhance the reliability of utility service in this State.

Based on projected rates of land filling at LRL, the proposed LFGTE Facility is estimated to provide reliable energy services to customers of Nevada for approximately 20 years, As the landfill grows and produces more gas, the

plant may be expanded and could continue operating even after the landfill closes.

3. Achieve interstate benefits by the proposed construction or modification of transmission facilities in this State.

Not applicable.

- IX. AN EXPLANATION OF how the need for the proposed utility facility as described in subsection 8 balances any adverse effects on the environment as described in subsection 7.

As demonstrated earlier in this application, the proposed utility Facility will not adversely affect the environment. Methane generation from the LRL is currently being burned off using a flare. The proposed project will harness the energy from the combustion of that methane product and convert it into electricity. There is a need to produce safe, reliable, and cost-effective electric service to existing and anticipated growth of the retail customer base and other users of electricity. The proposed Facility will increase the capacity of the local power grid, thereby reducing demand on existing utility facilities as well as aiding in reducing future demand for the construction of costly new utility facilities. In this way, the proposed project actually has a beneficial effect on the environment.

- X. AN EXPLANATION OF how the proposed utility facility represents the minimum adverse effect on the environment, including:

- (a) The state of available technology;
- (b) The nature of various alternatives; and
- (c) The economics of various alternatives.

By locating the LFGTE project at the existing landfill, significant infrastructure efficiencies can be achieved by avoiding the need for duplicative facilities. The infrastructures for the most part is already in place, thereby avoiding the impacts and costs associated with constructing duplicative landfill infrastructure at another location (e.g., buildings, equipment yard, power, water, fuel tanks, LFG collection systems, leachate and storm water management systems, and other environmental controls). For example, a considerable cost savings for infrastructure would be realized through use of the new access road that was constructed three years ago. Use of this road would avoid capital costs needed for another road to be designed and constructed at another Site. The existing recycling operations will remain (e.g., used asphalt grinding, bioremediation of petroleum contaminated soils, white metals), thereby avoiding costs for set-up, permitting and implementation of new programs.

Equipment and manpower from the existing landfill will be utilized by the new LFGTE avoiding duplication of needs and/or loss of productivity resulting from simultaneous operation and management of two operations. When closed, final

closure configuration and environmental control systems can be better designed and optimized for one Site rather than two.

The existing landfill property and LFGTE project is well situated outlying the cities of Reno/Sparks in an unincorporated area of Storey County. The proposed Site is within twelve miles from the center of the two cities and is easily accessible via Interstate 80 and a newly constructed all weather access road that can accommodate light and heavy truck traffic. The proposed LFGTE project is situated within a 2,000 acre buffer zone, which is solely owned by Refuse, Inc. The area adjacent to the property consists of gravel pit operations to the Southwest of the proposed Site and a small community which is located northwest, but out of line sight of the proposed expansion. The existing landfill is a canyon fill with multiple benches, that at a defined level, will adjoin with the expansion area bench design and at closure will have a large fiat area for a variety of possible beneficial uses (i.e. race track, golf course, park, etc.). Furthermore, for the same reasons that the existing landfill is well-suited for its location, the Property is environmentally, geologically, and hydrologically well-suited as a landfill disposal Site.

By avoiding the significant additional costs associated with the construction, permitting, development, operation, closure, and maintenance of two separate facilities, landfill disposal costs can remain low, which in turn provides a significant benefit to the local community. In addition, landfill costs will be reduced as the landfill will be generating electricity to meet the Facility needs as well as selling excess electricity to the grid, thereby further reducing the costs of operating the landfill, while providing a public benefit.

XI. AN EXPLANATION OF how the location of the proposed utility facility conforms to applicable state and local laws and regulations, including a list of all permits, licenses and approvals required by federal, state and local statutes, regulations and ordinances. The explanation must include a list that indicates:

(a) All permits, licenses and approvals the applicant has obtained, including copies thereof; and

See the attached permit applications and permits received located in Exhibit E

- Solid Waste Disposal Site Permit Class 1, Permit # SW214R01
- Class I Air Quality Operating Permit, Permit # AP4953-1148.01; Current Permit
- Class I-B Operating Permit Significant Revision, Submitted for approval September 2, 2010

(b) All permits, licenses and approvals the applicant is in the process of obtaining to commence construction of the proposed utility facility. The applicant must provide an estimated timeline for obtaining these permits, licenses and approvals.

- Utility Environmental Protection Act Permit (UEPA), to comply with all applicable statutes and regulation of the Public Utilities Commission of Nevada. The UEPA is required for the construction of a utility facility, Estimated Time 4 to 6 weeks.
- Class I-B Air Quality Operating Permit, Estimated Time 6 to 8 weeks.
- City of Reno Commercial Building Permit, required for construction of the LFGTE building, Estimated Time 6 to 8 weeks.
- City of Reno Electrical and Plumbing Permit, required for the installation of the electrical and plumbing for the new LFGTE building, Estimated Time 2 to 4 weeks.
- City of Reno Fire Sprinkler/Suppression/Alarm Permit, required for the installation of sprinkler system and alarm system, Estimated Time 2 to 4 weeks.
- City of Reno Grading Permit, required for grading on the Site for the new LFGTE building, Estimated Time 2 to 4 weeks.

XII. AN EXPLANATION OF how the proposed utility facility will serve the public interest, including:

(a) The economic benefits that the proposed utility facility will bring to the applicant and this State.

The proposed project will serve the public interest by:

1. Supplying a relatively clean reliable, long-term source of energy from an existing source that requires little energy or natural resources to develop;
2. Reducing overall demand on the grid through increased supply of electricity, thereby reducing the need to develop new and expensive power generation facilities;
3. Reducing overall greenhouse gas emissions; and
4. Potentially reduce the overall cost of electricity to the consumer.

(b) The nature of the probable effect on the environment in this State if the proposed utility facility is constructed.

The proposed LFGTE expansion will not impact previously undisturbed lands. The proposed Site is currently permitted and operating as a landfill.

The proposed LFGTE project will utilize a very small portion (14,279 sq. ft.) of the existing footprint of the recently expanded landfill. Equipment will be located within already disturbed areas. Therefore, no additional natural resources will be disturbed through the construction of this project. Water will be needed for the construction of the project. The LFGTE project will use approximately 10,000 gallons of water to construct the plant and approximately 20 gallons per day for the one employee that will be needed to operate the LFGTE Facility, plus an additional 100 gallons per week for washing down equipment during the operation of the Facility.

Currently the methane gas generated by the landfill is burned off by a flare in order to reduce the impacts of greenhouse gases. Methane gas is approximately twenty one times more detrimental to the atmosphere than the carbon dioxide that is produced through methane combustion. Furthermore, there is a tremendous benefit in harnessing the energy from the methane gas which is currently being burned and released to the atmosphere. Methane gas conversion to usable energy will be delivered as electricity to the grid and available for use by utility consumers, including the landfill itself.

The Facility is a source of emissions for volatile organic compounds (VOCs), carbon monoxide (CO), and sulfur oxides (SO<sub>x</sub>) but none of these causes nor contributes to a violation of Nevada or National Ambient Air Quality Standards (AAQS). Air modeling conducted as part of the air permit application will ensure that no exceedances of the AAQS 25 will occur.

(c) The nature of the probable effect on the public health, safety and welfare of the residents of this State if the proposed utility facility is constructed.

It is anticipated that there will be almost no significant impact on the quality of the environment for humans, nor will there be significant environmental impacts.

(d) The interstate benefits expected to be achieved by the proposed electric transmission facility in this State.

Not Applicable.



**PUBLIC UTILITIES COMMISSION OF NEVADA**  
**DRAFT NOTICE**  
**(Applications, Tariff Filings, Complaints, and Petitions)**

Pursuant to Nevada Administrative Code (“NAC”) 703.162, the Commission requires that a draft notice be included with all applications, tariff filings, complaints and petitions. Please complete and include **ONE COPY** of this form with your filing. (Completion of this form may require the use of more than one page.)

A title that generally describes the relief requested (see NAC 703.160(5)(a)):

Application for Permit to Construct a Utility Facility at the Lockwood Regional Landfill (LRL).

The name of the applicant, complainant, petitioner or the name of the agent for the applicant, complainant or petitioner (see NAC 703.160(5)(b)):

Mr. William Carr, P.E., District Manager  
REFUSE, INC.  
2401 Canyon Way  
Sparks, Nevada 89434

A brief description of the purpose of the filing or proceeding, including, without limitation, a clear and concise introductory statement that summarizes the relief requested or the type of proceeding scheduled **AND** the effect of the relief or proceeding upon consumers (see NAC 703.160(5)(c)):

The LRL is planning to build a Landfill Gas to Energy (LFGTE) power generator at the Lockwood Regional Landfill (Property) located at 2401 Canyon Way, Sparks, Nevada (Site) (Exhibit A). Lockwood Regional Landfill is owned and operated by Refuse, Inc. (RI), a wholly-owned subsidiary of Waste Management, Inc. (WM).

The project will use landfill gas (LFG) extracted from LRL’s existing LFG collection system and convert it into energy through various systematic thermal processes and a landfill gas power generator. The LFGTE power plant will provide local electrical power to the landfill and to the energy grid.

The project will consist of three 17.82 million metric British thermal units per hour (MMBtu/h) Internal Combustion (IC) Caterpillar 3520 reciprocating engines and generator with a total capacity to produce 3.2 megawatts of power. The project may also include a gas cleaning module.

A statement indicating whether a consumer session is required to be held pursuant to Nevada Revised Statute (“NRS”) 704.069(1)<sup>1</sup>:

This is not applicable for this project.

If the draft notice pertains to a tariff filing, please include the tariff number **AND** the section number(s) or schedule number(s) being revised.

This is not Applicable to this project.

DRAFT

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<sup>1</sup> NRS 704.069 states in pertinent part:

1. The Commission shall conduct a consumer session to solicit comments from the public in any matter pending before the Commission pursuant to NRS 704.061 to 704.110 inclusive, in which:
  - (a) A public utility has filed a general rate application, an application to recover the increased cost of purchased fuel, purchased power, or natural gas purchased for resale or an application to clear its deferred accounts; and
  - (b) The changes proposed in the application will result in an increase in annual gross operating revenue, as certified by the applicant, in an amount that will exceed \$50,000 or 10 percent of the applicant’s annual gross operating revenue, whichever is less.

PROOF OF SERVICE

I am employed by Stearns, Conrad and Schmidt Consulting Engineers, Inc. d/b/a SCS Engineers ("SCS") at the SCS office located at 3843 Brickway Boulevard, Suite 208, Santa Rosa, California. I am over the age of 18. I am in charge of serving the following documents (the "Documents") on the parties identified below:

Amendment to the UEPA Application to Construct Permit with Attachments for Reuse, Inc. Landfill Gas to Energy Project located at 2401 Canyon Way, Sparks, Nevada.

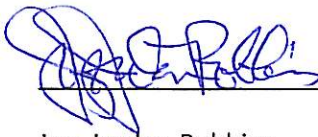
Amended Application for Permit (16 pages), cover letter, draft notice and amended proof of service to the following recipient.

|               |                               |   |
|---------------|-------------------------------|---|
| Tammy Cordova | State Counsel PUCN            | tcordova@puc.nv.gov                       |
| Staff Counsel | PUCN                          | pucn.sc@puc.nv.gov                        |
| Eric Witkoski | Bureau of Consumer Protection | bcpserv@ag.nv.gov;<br>ewitkoski@ag.nv.gov |
| Reese Tietje  | State Clearing House          | clearinghouse@state.nv.us                 |
| Randy Amestoy | County of Washoe, Clerk       | ramestoy@washoe.us                        |

I caused the Documents to be transmitted via email to the Parties identified above at the email addresses set out above. No error was reported in connection with the email transmissions. A copy of the transmissions is attached.

I declare under penalty of perjury that the above is true and correct.

Executed on January 27, 2011 at Santa Rosa, California



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Joy Jordan-Robbins

Title: Sr. Project Administrator

## SCS ENGINEERS

Via FedEx Delivery

January 27, 2011

Breanne Potter, Assistance Commission Secretary  
**Public Utilities Commission of Nevada**  
1150 East William Street  
Carson City, Nevada 89701

**Re: Amendment to Application Document Number 11-01020 of Refuse, Inc., a Nevada Corporation, for a Permit to Construct the Lockwood Landfill Gas to Energy Project under the Utility Environmental Protection Act ("UEPA")**

Dear Ms. Potter:

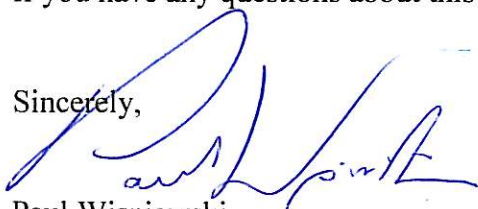
Enclosed please find document to amend the Application Document Number 11-01020. Please remove pages 3 to 21 and insert the attached pages, minus this cover letter and amended proof of service. Please insert the amended proof of service (1 page) after the documents in Exhibit F.

The documents accompanying this amendment to Application Document Number 11-01020 are:

1. Application for Permit to Construct a Utility Facility Pursuant to the Utility Environmental Protection Act (UEPA);
2. Draft Public Notice of the Application; and
3. Amended Proof of Service

If you have any questions about this filing, please contact me.

Sincerely,



Paul Wisniewski  
Project Manager  
SCS Engineers