



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1410 North Hilton • Boise, Idaho 83706 • (208) 373-0502
www.deq.idaho.gov

C.L. "Butch" Otter, Governor
John H. Tippetts, Director

January 5, 2018

Josh Bartlome
Executive Director and CEO
Milner Butte Landfill
1050 West 400 South
Burley, Idaho 83318

RE: Facility ID No. 031-00046, Milner Butte Landfill, Burley
Final Permit Letter, DEQ Initiated Permit Reissuance

Dear Mr. Bartlome:

The Department of Environmental Quality (DEQ) is issuing Permit to Construct (PTC) No. P-2011.0054, Project 61985, to Milner Butte Landfill to adjust the schedule of hydrogen sulfide monitoring to include quarterly monitoring instead of monitoring once each two weeks, and to remove the hydrogen sulfide reporting requirement (in Permit Conditions 2.16 and 2.18).

This permit is effective immediately and replaces PTC No. P-2011.0054, project 61834, issued on July 28, 2017. This permit does not release Milner Butte Landfill from compliance with all other applicable federal, state, or local laws, regulations, permits, or ordinances. The accompanying Statement of Basis document remains unchanged.

Pursuant to IDAPA 58.01.23, you, as well as any other entity, may have the right to appeal this final agency action within 35 days of the date of this decision. However, prior to filing a petition for a contested case, I encourage you to contact Dan Pitman at (208) 373-0502 or daniel.pitman@deq.idaho.gov to address any questions or concerns you may have with the enclosed permit.

Sincerely,

A handwritten signature in black ink that reads "Mike Simon".

Mike Simon
Stationary Source Program Manager
Air Quality Division

MS/DP
Enclosure
Permit No. P-2011.0054 Project 61985

Air Quality

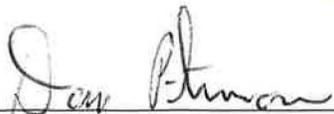
PERMIT TO CONSTRUCT

Permittee Milner Butte Landfill
Permit Number P-2011.0054
Project ID 61985
Facility ID 031-00046
Facility Location 1050 West 400 South
Burley, ID

Permit Authority

This permit (a) is issued according to the "Rules for the Control of Air Pollution in Idaho" (Rules), IDAPA 58.01.01.200–228; (b) pertains only to emissions of air contaminants regulated by the State of Idaho and to the sources specifically allowed to be constructed or modified by this permit; (c) has been granted on the basis of design information presented with the application; (d) does not affect the title of the premises upon which the equipment is to be located; (e) does not release the permittee from any liability for any loss due to damage to person or property caused by, resulting from, or arising out of the design, installation, maintenance, or operation of the proposed equipment; (f) does not release the permittee from compliance with other applicable federal, state, tribal, or local laws, regulations, or ordinances; and (g) in no manner implies or suggests that the Idaho Department of Environmental Quality (DEQ) or its officers, agents, or employees assume any liability, directly or indirectly, for any loss due to damage to person or property caused by, resulting from, or arising out of design, installation, maintenance, or operation of the proposed equipment. Changes in design, equipment, or operations may be considered a modification subject to DEQ review in accordance with IDAPA 58.01.01.200–228.

Date Issued January 5, 2018



Dan Pitman, P.E., Permit Writer



Mike Simon, Stationary Source Manager

Contents

1	Permit Scope.....	3
2	Landfill - Hydrogen Sulfide Limit and 40 CFR 60 Subpart WWW.....	4
3	Internal Combustion Engines	15
4	40 CFR 60 Subpart JJJJ.....	17
5	Incorporation by Reference	20
6	General Provisions.....	21

1 Permit Scope

Purpose

- 1.1 This is modified permit to construct (PTC) for a landfill. This is a DEQ initiated permit modification to change hydrogen sulfide monitoring frequency and reporting requirements.
- 1.2 Those permit conditions that have been modified or revised by this permitting action are identified by the permit issue date citation located directly under the permit condition and on the right-hand margin.
- 1.3 This PTC replaces Permit to Construct No. P-2011.0054, issued on July 28, 2017.

Regulated Sources

Table 1.1 lists all sources of regulated emissions in this permit.

Table 1.1 Regulated Sources

Source	Control Equipment
Landfill Max. Capacity: 19,400,000 cubic yards Date of Construction: 1993	Flare Manufacturer: Perennial Energy, Inc. Model No.: FL114-32-E And/Or Landfill Gas Conditioning Skid (Gas Filtering, dewatering, and compressing) Manufacturer: LFG Specialties, Capital Services, CB&I Rated Capacity 1,000 scfm
Engine Generator Sets (2) Manufacturer: Dresser Rand Model: HGM 560 Engine Rated Capacity: 1,750 Hp (each, @ 4,390 feet and 86° F) Electric Generator Power Rating: 1,263 kW (each, @ 4,390 feet and 86° F)	None

2 Landfill - Hydrogen Sulfide Limit and 40 CFR 60 Subpart WWW

2.1 Landfill and Flare Process Description

The Milner Butte Landfill (MBL), owned and operated by Southern Idaho Regional Solid Waste District (SISW), is located approximately 13 miles west of Burley, Idaho, and 25 miles east of Twin Falls, Idaho. The site lies near the East slope of Milner Butte and occupies 640 acres. The site began accepting waste in 1994. The landfill has a current overall permitted capacity of 140 acres and accepts mixed municipal solid waste from seven counties in southern Idaho.

Based upon an estimated annual increase of 1.5 percent in waste acceptance rates for the landfill for year 2011 and onward, and the total maximum permitted waste capacity of the landfill (19,400,000 cubic yards), it is estimated that the final maximum permitted capacity will be reached by 2060.

The existing Gas Collection and Control System (GCCS) consists of a header piping network, vertical gas extraction wells, horizontal gas collectors, condensate collection, and connections to the existing Leachate Collection and Recovery System (LCRS).

The blower/flare station is equipped with two blowers and a single enclosed flare. A second blower is used in the event of a breakdown or subsequent maintenance to the primary blower. The blowers are manufactured by Houston Service Industries (HSI) and are rated at 30 horsepower (HP) each. The flare was manufactured by Perennial Energy and has a maximum rating of 1,500 standard cubic feet per minute (scfm) at 50% methane. The flare is equipped with:

- Continuous temperature and flow recorder
- Flow meter
- UV flame scanner to monitor for flame failure
- Automated shut-off (isolation valve) to close off the gas supply to the flare and avoid venting to atmosphere
- Flame arrestor

The process description is provided for informational purposes only and does not represent an enforceable permit condition.

Delegation

DEQ is delegated 40 CFR 60 Subpart WWW.

2.2 Control Device Descriptions

Table 2.1 Landfill Flare Description

Emissions Units / Processes	Emission Control Devices
Landfill Max. Capacity: 19,400,000 cubic yards Date of Construction: 1993	Flare Manufacturer: Perennial Energy, Inc. Model No.: FL114-32-E And/Or Landfill Gas Conditioning Skid (Gas Filtering, dewatering, and compressing) Manufacturer: LFG Specialties, Capital Services, CB&I Rated Capacity 1,000 scfm

Emission Limits

2.3 Emission Standards

2.3.1 Hydrogen Sulfide Limit

The hydrogen sulfide concentration in the landfill gas being combusted in the flare or combusted in the engines shall not exceed 150 ppmv.

[7/28/17]

2.3.2 Odors

In accordance with IDAPA 58.01.01.776.01 the permittee shall not allow, suffer, cause or permit the emission of odorous gases, liquids or solids into the atmosphere in such quantities as to cause air pollution.

[7/28/17]

Operating Requirements

2.4 Subpart WWW Standards for air emissions from municipal solid waste landfills.

In accordance with 40 CFR 60.752 the permittee shall route all the collected gas to a control system that complies with the requirements in either paragraph (b)(2)(iii) (B) or (C) of this section.

(B) A control system designed and operated to reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control, to either reduce NMOC by 98 weight percent or reduce the outlet NMOC concentration to less than 20 parts per million by volume, dry basis as hexane at 3 percent oxygen. The reduction efficiency or parts per million by volume shall be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using the test methods specified in §60.754(d). The control device shall be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in §60.756;

(C) Route the collected gas to a treatment system (i.e. filtering with 10 micron screen, dewatering and compressing) that processes the collected gas for subsequent sale or use.

[7/28/17]

2.5 Subpart WWW Operational standards for collection and control systems

In accordance with 40 CFR 60.753, the permittee shall:

(a) Operate the collection system such that gas is collected from each area, cell, or group of cells in the municipal solid waste (MSW) landfill in which solid waste has been in place for:

- (1) 5 years or more if active; or
- (2) 2 years or more if closed or at final grade;

(b) Operate the collection system with negative pressure at each wellhead except under the following conditions:

(1) A fire or increased well temperature. The owner or operator shall record instances when positive pressure occurs in efforts to avoid a fire. These records shall be submitted with the annual reports as provided in 40 CFR 60.757(f)(1);

(2) Use of a geomembrane or synthetic cover. The owner or operator shall develop acceptable pressure limits in the design plan;

(3) A decommissioned well. A well may experience a static positive pressure after shut down to accommodate for declining flows. All design changes shall be approved by the Administrator;

(c) Operate each interior wellhead in the collection system with a landfill gas temperature less than 55 °C and with either a nitrogen level less than 20 percent or an oxygen level less than 5 percent. The owner or operator may establish a higher operating temperature, nitrogen, or oxygen value at a particular well. A higher operating value demonstration shall show supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens.

(1) The nitrogen level shall be determined using Method 3C, unless an alternative test method is established as allowed by 40 CFR 60.752(b)(2)(i).

(2) Unless an alternative test method is established as allowed by 40 CFR 60.752(b)(2)(i), the oxygen shall be determined by an oxygen meter using Method 3A or 3C except that:

(i) The span shall be set so that the regulatory limit is between 20 and 50 percent of the span;

(ii) A data recorder is not required;

(iii) Only two calibration gases are required, a zero and span, and ambient air may be used as the span;

(iv) A calibration error check is not required;

(v) The allowable sample bias, zero drift, and calibration drift are ± 10 percent.

(d) Operate the collection system so that the methane concentration is less than 500 parts per million above background at the surface of the landfill. To determine if this level is exceeded, the owner or operator shall conduct surface testing around the perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover. The owner or operator may establish an alternative traversing pattern that ensures

equivalent coverage. A surface monitoring design plan shall be developed that includes a topographical map with the monitoring route and the rationale for any site-specific deviations from the 30 meter intervals. Areas with steep slopes or other dangerous areas may be excluded from the surface testing.

(e) Operate the system such that all collected gases are vented to a control system designed and operated in compliance with 40 CFR 60.752(b)(2)(iii). In the event the collection or control system is inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within 1 hour; and

(f) Operate the control or treatment system at all times when the collected gas is routed to the system.

(g) If monitoring demonstrates that the operational requirements in paragraphs (b), (c), or (d) of this section are not met, corrective action shall be taken as specified in 40 CFR 60.755(a)(3) through (5) or 40 CFR 60.755(c). If corrective actions are taken as specified in 40 CFR 60.755, the monitored exceedance is not a violation of the operational requirements in this section.

Monitoring and Recordkeeping Requirements

2.6 Subpart WWW Gas Collection System Flowrate Monitoring

In accordance with 40 CFR 60.755(a)(3), the permittee shall measure gauge pressure in the gas collection header at each individual well, monthly. If a positive pressure exists, action shall be initiated to correct the exceedance within 5 calendar days, except for the three conditions allowed under Permit Condition 7 (b). If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial measurement of positive pressure. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the Administrator for approval.

2.7 Subpart WWW Well Monitoring

In accordance with 40 CFR 60.755(a)(5), the permittee shall monitor each well monthly for temperature and nitrogen or oxygen as provided in Permit Condition 7 (c). If a well exceeds one of these operating parameters, action shall be initiated to correct the exceedance within 5 calendar days. If correction of the exceedance cannot be achieved within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial exceedance. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the Administrator for approval.

2.8 Subpart WWW Well Installation

In accordance with 40 CFR 60.755 (b), the permittee shall place each well or design component as specified in the approved design plan as provided in 40 CFR 60.752(b)(2)(i). Each well shall be installed no later than 60 days after the date on which the initial solid waste has been in place for a period of:

- (1) 5 years or more if active; or
- (2) 2 years or more if closed or at final grade.

2.9 Subpart WWW Surface Methane Monitoring

In accordance with 40 CFR 60.755(c):

(1) After installation of the collection system, the owner or operator shall monitor surface concentrations of methane along the entire perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals (or a site-specific established spacing) for each collection area on a quarterly basis using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in 40 CFR 60.755 (d).

(2) The background concentration shall be determined by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least 30 meters from the perimeter wells.

(3) Surface emission monitoring shall be performed in accordance with section 4.3.1 of Method 21 of appendix A of this part, except that the probe inlet shall be placed within 5 to 10 centimeters of the ground. Monitoring shall be performed during typical meteorological conditions.

(4) Any reading of 500 parts per million or more above background at any location shall be recorded as a monitored exceedance and the actions specified in 40 CFR 60.755(c)(4) (i) through (v) shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of 40 CFR 60.753(d).

(i) The location of each monitored exceedance shall be marked and the location recorded.

(ii) Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance shall be made and the location shall be re-monitored within 10 calendar days of detecting the exceedance.

(iii) If the re-monitoring of the location shows a second exceedance, additional corrective action shall be taken and the location shall be monitored again within 10 days of the second exceedance. If the re-monitoring shows a third exceedance for the same location, the action specified in 40 CFR 60.755(c)(4)(v) shall be taken, and no further monitoring of that location is required until the action specified in 40 CFR 60.755(c)(4)(v) has been taken.

(iv) Any location that initially showed an exceedance but has a methane concentration less than 500 ppm methane above background at the 10-day re-monitoring specified in 40 CFR 60.755(c)(4) (ii) or (iii) shall be re-monitored 1 month from the initial exceedance. If the 1-month re-monitoring shows a concentration less than 500 parts per million above background, no further monitoring of that location is required until the next quarterly monitoring period. If the 1-month re-monitoring shows an exceedance, the actions specified in 40 CFR 60.755(c) (4) (iii) or (v) shall be taken.

(v) For any location where monitored methane concentration equals or exceeds 500 parts per million above background three times within a quarterly period, a new well or other collection device shall be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation may be submitted to the Administrator for approval.

(5) The owner or operator shall implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis.

2.10 Subpart WWW Methane Monitoring Instrumentation

In accordance with 40 CFR 60.755(d), the permittee shall comply with the following instrumentation specifications and procedures for surface emission monitoring devices:

- (1) The portable analyzer shall meet the instrument specifications provided in section 3 of Method 21 of 40 CFR 60 appendix A, except that "methane" shall replace all references to VOC.
- (2) The calibration gas shall be methane, diluted to a nominal concentration of 500 parts per million in air.
- (3) To meet the performance evaluation requirements in section 3.1.3 of Method 21 of appendix A, the instrument evaluation procedures of section 4.4 of Method 21 of 40 CFR 60 appendix A shall be used.
- (4) The calibration procedures provided in section 4.2 of Method 21 of 40 CFR 60 appendix A shall be followed immediately before commencing a surface monitoring survey.

2.11 Subpart WWW Exception to Provisions

In accordance with 40 CFR 60.755(e), the provisions of Subpart WWW apply at all times, except during periods of start-up, shutdown, or malfunction, provided that the duration of start-up, shutdown, or malfunction shall not exceed 5 days for collection systems and shall not exceed 1 hour for treatment or control devices.

2.12 Subpart WWW Other Monitoring

In accordance with 40 CFR 60.756, except as provided in 40 CFR 60.752(b)(2)(i)(B),

(a) Each owner or operator seeking to comply with 40 CFR 60.752(b)(2)(ii)(A) for an active gas collection system shall install a sampling port and a thermometer, other temperature measuring device, or an access port for temperature measurements at each wellhead and:

- (1) Measure the gauge pressure in the gas collection header on a monthly basis as provided in 40 CFR 60.755(a)(3); and
 - (2) Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as provided in 40 CFR 60.755(a)(5); and
 - (3) Monitor temperature of the landfill gas on a monthly basis as provided in 40 CFR 60.755(a)(5).
- (b) Each owner or operator seeking to comply with 40 CFR 60.752(b)(2)(iii) using an enclosed combustor shall calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment.

(1) A temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of ± 1 percent of the temperature being measured expressed in degrees Celsius or ± 0.5 degrees Celsius, whichever is greater. A temperature monitoring device is not required for boilers or process heaters with design heat input capacity equal to or greater than 44 megawatts.

(2) A device that records flow to or bypass of the control device. The owner or operator shall either:

- (i) Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; or
- (ii) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least

once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

2.13 Subpart WWW Surface Concentrations of Methane Monitoring

In accordance with 40 CFR 60.756(f), the permittee shall monitor surface concentrations of methane according to the instrument specifications and procedures provided in 40 CFR 60.755(d). Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of 500 ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring.

2.14 Subpart AAAA SSM Plan

In accordance with 40 CFR 63.1960, the permittee must develop a written SSM plan according to the provisions in 40 CFR 63.6(e)(3). A copy of the SSM plan must be maintained on site. Failure to write or maintain a copy of the SSM plan is a deviation from the requirements of this subpart.

In accordance with 40 CFR 63.10(d)(5), if actions taken during a startup, shutdown and malfunction plan are consistent with the procedures in the startup, shutdown and malfunction plan, this information shall be included in a semi-annual startup, shutdown and malfunction plan report. Any time an action taken during a startup, shutdown and malfunction plan is not consistent with the startup, shutdown and malfunction plan, the source shall report actions taken within 2 working days after commencing such actions, followed by a letter 7 days after the event.

Performance Testing Requirements

2.15 Hydrogen Sulfide (H₂S) Concentration Monitoring

The permittee shall measure the H₂S concentration, in ppmv, of the landfill gas stream prior to being combusted in the flare and prior to being combusted in the engines. The H₂S concentration at each location shall be determined by conducting three separate measurements within five minutes of each other. The three separate measurements shall then be averaged to determine compliance with the Hydrogen Sulfide Limit permit condition.

If the landfill gas that is combusted in the flare and the engines originates from the same wells then monitoring may be limited to the landfill gas stream prior to being combusted in either the flare or the engines, both locations do not need to be monitored.

[7/28/17]

2.16 Hydrogen Sulfide (H₂S) Concentration Monitoring Schedule

H₂S concentration monitoring shall occur as follows:

- The permittee shall measure the H₂S concentration once per day for five consecutive business days.
- If the measured H₂S concentration demonstrates compliance with the landfill gas stream Hydrogen Sulfide Limit after five consecutive business days, then subsequent H₂S monitoring shall occur once per week for four consecutive weeks.
- If the H₂S concentration demonstrates compliance with the landfill gas stream Hydrogen Sulfide Limit after four consecutive weeks, then subsequent H₂S monitoring shall occur once every three months continuing thereafter.

If the H₂S concentration does not demonstrate compliance during any of the monitoring periods, then H₂S monitoring shall revert back to the daily schedule.

[1/5/18]

2.17 Hydrogen Sulfide (H₂S) Concentration Recordkeeping

Records shall include the results of each H₂S measurement and the calculated average of the three separate H₂S measurements used to demonstrate compliance with the H₂S Concentration Limit permit condition.

The hand held H₂S monitor used to measure the H₂S concentration of the landfill gas stream shall have a certified accuracy of plus or minus 10%. The hand held monitor shall be calibrated and maintained in accordance with the manufacturer's specifications.

Records of this information shall be maintained in accordance with the Recordkeeping General Provision.

Record Keeping and Reporting Requirements

2.18 Subpart WWW Annual Reports

In accordance with 40 CFR 60.757(f), the permittee shall submit to the Administrator annual reports of the recorded information in (f)(1) through (f)(6) of this paragraph.

(1) Value and length of time for exceedance of applicable parameters monitored under 40 CFR 60.756(a), (b), (c), and (d).

(2) Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow as specified under 40 CFR 60.756.

(3) Description and duration of all periods when the control device was not operating for a period exceeding 1 hour and length of time the control device was not operating.

(4) All periods when the collection system was not operating in excess of 5 days.

(5) The location of each exceedance of the 500 parts per million methane concentration as provided in 40 CFR 60.753(d) and the concentration recorded at each location for which an exceedance was recorded in the previous month.

(6) The date of installation and the location of each well or collection system expansion added pursuant to paragraphs (a)(3), (b), and (c)(4) of 40 CFR 60.755.

2.19 Subpart WWW Recordkeeping Requirements

In accordance with 40 CFR 60.758(a), except as provided in 40 CFR 60.752(b)(2)(i)(B), the permittee shall keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report which triggered 40 CFR 60.752(b), the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.

In accordance with 40 CFR 60.758(b), except as provided in 40 CFR 60.752(b)(2)(i)(B), each owner or operator of a controlled landfill shall keep up-to-date, readily accessible records for the life of the control equipment of the data listed in 40 CFR 60.752(b)(1) and (b)(2) of this section as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. Records of the control device vendor specifications shall be maintained until removal.

(1) Where an owner or operator subject to the provisions of Subpart WWW seeks to demonstrate compliance with 40 CFR 60.752(b)(2)(ii):

(i) The maximum expected gas generation flow rate as calculated in 40 CFR 60.755(a)(1). The owner or operator may use another method to determine the maximum gas generation flow rate, if the method has been approved by the Administrator.

(ii) The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in 40 CFR 60.759(a)(1).

(2) Where an owner or operator subject to the provisions of Subpart WWW seeks to demonstrate compliance with 40 CFR 60.752(b)(2)(iii) through use of an enclosed combustion device other than a boiler or process heater with a design heat input capacity equal to or greater than 44 megawatts:

(i) The average combustion temperature measured at least every 15 minutes and averaged over the same time period of the performance test.

(ii) The percent reduction of NMOC determined as specified in 40 CFR 60.752(b)(2)(iii)(B) achieved by the control device.

2.20 Subpart WWW Equipment Operating Parameter Recordkeeping Requirements

In accordance with 40 CFR 60.758(c), except as provided in 40 CFR 60.752(b)(2)(i)(B), each owner or operator of a controlled landfill subject to the provisions of Subpart WWW shall keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in 40 CFR 60.756 as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded.

(1) The following constitute exceedances that shall be recorded and reported under 40 CFR 60.757(f):

(i) For enclosed combustors except for boilers and process heaters with design heat input capacity of 44 megawatts (150 million British thermal unit per hour) or greater, all 3-hour periods of operation during which the average combustion temperature was more than 28 °C below the average combustion temperature during the most recent performance test at which compliance with 40 CFR 60.752(b)(2)(iii) was determined.

2.21 Subpart WWW Flow Recordkeeping Requirements

In accordance with 40 CFR 60.758(c)(2), each owner or operator subject to the provisions of Subpart WWW shall keep up-to-date, readily accessible continuous records of the indication of flow to the control device or the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines, specified under 40 CFR 60.756.

2.22 Subpart WWW Collection System Recordkeeping Requirements

In accordance with 40 CFR 60.758(d), except as provided in 40 CFR 60.752(b)(2)(i)(B), each owner or operator subject to the provisions of this subpart shall keep for the life of the collection system an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector.

(1) Each owner or operator subject to the provisions of Subpart WWW shall keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under 40 CFR 60.755(b).

(2) Each owner or operator subject to the provisions of Subpart WWW shall keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste excluded from collection as provided in 40 CFR 60.759(a)(3)(i) as well as any nonproductive areas excluded from collection as provided in 40 CFR 60.759(a)(3)(ii).

In accordance with 40 CFR 60.758(e), except as provided in 40 CFR 60.752(b)(2)(i)(B), each owner or operator subject to the provisions of Subpart WWW shall keep for at least 5 years up-to-date, readily accessible records of all collection and control system exceedances of the operational standards in 40 CFR 60.753, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance.

2.23 Subpart WWW Collection Wells

In accordance with 40 CFR 60.759, (a) the permittee shall site active collection wells, horizontal collectors, surface collectors, or other extraction devices at a sufficient density throughout all gas producing areas using the following procedures unless alternative procedures have been approved by the Administrator as provided in 40 CFR 60.752(b)(2)(i)(C) and (D):

(1) The collection devices within the interior and along the perimeter areas shall be certified to achieve comprehensive control of surface gas emissions by a professional engineer. The following issues shall be addressed in the design: depths of refuse, refuse gas generation rates and flow characteristics, cover properties, gas system expandability, leachate and condensate management, accessibility, compatibility with filling operations, integration with closure end use, air intrusion control, corrosion resistance, fill settlement, and resistance to the refuse decomposition heat.

(2) The sufficient density of gas collection devices determined in paragraph (a)(1) of this section shall address landfill gas migration issues and augmentation of the collection system through the use of active or passive systems at the landfill perimeter or exterior.

(3) The placement of gas collection devices determined in paragraph (a)(1) of this section shall control all gas producing areas, except as provided by paragraphs (a)(3)(i) and (a)(3)(ii) of this section.

(i) Any segregated area of asbestos or nondegradable material may be excluded from collection if documented as provided under 40 CFR 60.758(d). The documentation shall provide the nature, date of deposition, location and amount of asbestos or nondegradable material deposited in the area, and shall be provided to the Administrator upon request.

2.24 Subpart WWW Non Productive Areas

In accordance with 40 CFR 60.759(a)(3)(ii) and (iii), any nonproductive area of the landfill may be excluded from control, provided that the total of all excluded areas can be shown to contribute less than 1 percent of the total amount of NMOC emissions from the landfill. The amount,

location, and age of the material shall be documented and provided to the Administrator upon request. A separate NMOC emissions estimate shall be made for each section proposed for exclusion, and the sum of all such sections shall be compared to the NMOC emissions estimate for the entire landfill. Emissions from each section shall be computed using the following equation:

$$Q_i = 2 k L_o M_i (e^{-kt_i}) (C_{NMOC}) (3.6 \times 10^{-9})$$

where,

Q_i = NMOC emission rate from the i^{th} section, megagrams per year

k = methane generation rate constant, year^{-1}

L_o = methane generation potential, cubic meters per megagram solid waste

M_i = mass of the degradable solid waste in the i^{th} section, megagram

t_i = age of the solid waste in the i^{th} section, years

C_{NMOC} = concentration of nonmethane organic compounds, parts per million by volume

3.6×10^{-9} = conversion factor

The values for k and C_{NMOC} determined in field testing shall be used if field testing has been performed in determining the NMOC emission rate or the radii of influence (this distance from the well center to a point in the landfill where the pressure gradient applied by the blower or compressor approaches zero). If field testing has not been performed, the default values for k , L_o and C_{NMOC} provided in 40 CFR 60.754(a)(1) or the alternative values from 40 CFR 60.754(a)(5) shall be used. The mass of nondegradable solid waste contained within the given section may be subtracted from the total mass of the section when estimating emissions provided the nature, location, age, and amount of the nondegradable material is documented as provided in 40 CFR 60.754 (a)(3)(i).

2.25 Subpart AAAA Recordkeeping

In accordance with 40 CFR 63.1980, the permittee must submit the annual report described in 40 CFR 60.757(f) every 6 months.

3 Internal Combustion Engines

3.1 Process Description

The facility will install two internal combustion engines to generate electricity from landfill gas. The existing flare will burn landfill gas when either engine is offline.

3.2 Control Device Descriptions

Table 3.1 Internal Combustion Engines Description

Emissions Units / Processes	Control Devices
Engine Generator Sets (2) Manufacturer: Dresser Rand Model: HGM 560 Engine Rated Capacity: 1,750 Hp (each, @ 4,390 feet and 86° F) Electric Generator Power Rating: 1,263 kW (each, @ 4,390 feet and 86° F)	None

Emission Limits

3.3 Emission Limits

The emissions from the engines stacks shall not exceed any corresponding emissions rate limit listed in Table 3.2.

Table 3.2 Engine Emission Limits

Source Description	NO _x ^a			SO ₂ ^c	
	g/HP-hr ^b	lb/hr	T/yr	lb/hr	T/yr
Engine #1	1.2	4.79	21.0	0.61	2.7
Engine #2	1.2	4.79	21.0	0.61	2.7

- a) As determined by a test method prescribed by IDAPA 58.01.01.157 and using those methods specified in 40 CFR 60 Subpart JJJJ , or DEQ-approved alternative.
- b) Grams per horse-power hour.
- c) As determined by complying with this permits hydrogen sulfide limit.

[7/28/17]

Monitoring and Recordkeeping Requirements

3.4 Hours of Operation

The permittee shall keep records of the hours of operation of each engine by installing, operating, and maintaining a non-resettable hour meter on each engine.

[7/28/17]

Performance Testing Requirements

3.5 NO_x Performance Tests

The permittee shall conduct initial performance tests on each engine within 180 days of engine startup and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance.

[7/28/17]

3.6 Performance testing shall be conducted utilizing those methods and procedures specified for NO_x testing specified in 40 CFR 60 Subpart JJJJ.

[7/28/17]

Reporting Requirements

3.7 Reporting Requirement

Performance test results shall be submitted in accordance with the general provisions of this permit.

[7/28/17]

4 40 CFR 60 Subpart JJJJ

4.1 Process Description

The permittee will install and operate two identical engines that are subject to the requirements of 40 CFR 60 Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines. The sole purpose of this section of the permit is to incorporate the applicable requirements of 40 CFR 60 Subpart JJJJ. DEQ is delegated this subpart.

4.2 Control Device Descriptions

Table 4.1 Engine Description

Emissions Units / Processes	Control Devices
Engine Generator Sets (2) Manufacturer: Dresser Rand Model: HGM 560 Engine Rated Capacity: 1,750 Hp (each, @ 4,390 feet and 86° F) Electric Generator Power Rating: 1,263 kW (each, @ 4,390 feet and 86° F)	None

Emission Standards for Owners and Operators

4.3 In accordance with 40 CFR 60.4233(e), and Table 1 to 40 CFR 60 Subpart JJJJ, emissions from each engine must comply with the emissions standards listed in Table 4.2.

Table 4.2 Emissions Standards for Each Engine^a

g/HP-hr			ppmvd @15% O ₂		
NO _x	CO	VOC	NO _x	CO	VOC
3.0	5.0	1.0	220	610	80

a) Owners and operators of stationary non-certified SI engines may choose to comply with the emission standards in units of either g/HP-hr or ppmvd at 15 percent O₂.

[7/28/17]

4.4 In accordance with 40 CFR 60.4234 the permittee must operate and maintain the SI ICE that achieve the emissions standard over the entire life of the engine.

[7/28/17]

Other Requirements for Owners and Operators

4.5 In accordance with 40 CFR 60.4236, after July 1, 2009, owners and operators may not install stationary SI ICE with a maximum engine power of greater than or equal to 500 HP that do not meet the applicable requirements in 40 CFR 60.4233.

[7/28/17]

Compliance Requirements for Owners and Operators

4.6 In accordance with 40 CFR 60 4243(b) owners or operators of a stationary SI internal combustion engines which must comply with the emission standards specified in §60.4233 (e), must demonstrate compliance with the emission standards specified in §60.4233(e) according to the requirements specified in §60.4244, as applicable, and according to the following paragraph.

The permittee must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air

pollution control practice for minimizing emissions. In addition, the permittee must conduct an initial performance test and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance.

[7/28/17]

Testing Requirements for Owners and Operators

- 4.7 In accordance with 40 CFR 60.4244 the permittee shall conduct performance tests according the procedures in paragraphs (a) through (f) of that section, including testing within 10 percent of 100 percent peak (or the highest achievable) load.

[7/28/17]

Notification, Reports, and Records for Owners and Operators

- 4.8 In accordance with 40 CFR 60.4245 owners or operators of stationary SI ICE must meet the following notification, reporting and recordkeeping requirements.

Owners and operators of all stationary SI ICE must keep records of the information in the following paragraphs.

- All notifications submitted to comply with this subpart and all documentation supporting any notification.
- Maintenance conducted on the engine.
- If the stationary SI internal combustion engine is not a certified engine documentation that the engine meets the emission standards.

Owners and operators of stationary SI ICE greater than or equal to 500 HP that have not been certified by an engine manufacturer to meet the emission standards in §60.4231 must submit an initial notification as required in §60.7(a)(1). The notification must include the information in the following paragraphs.

- Name and address of the owner or operator;
- The address of the affected source;
- Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;
- Emission control equipment; and
- Fuel used.

Owners and operators of stationary SI ICE that are subject to performance testing must submit a copy of each performance test as conducted in §60.4244 within 60 days after the test has been completed. Performance test reports using EPA Method 18, EPA Method 320, or ASTM D6348-03 (incorporated by reference—see 40 CFR 60.17) to measure VOC require reporting of all QA/QC data. For Method 18, report results from sections 8.4 and 11.1.1.4; for Method 320, report results from sections 8.6.2, 9.0, and 13.0; and for ASTM D6348-03 report results of all QA/QC procedures in Annexes 1-7.

[7/28/17]

General Provisions

4.9 Table 4.3 lists the applicable general provisions of 40 CFR 60 Subpart A.

Table 4.3 Applicable General Provisions

General provisions citation	Subject of citation	Applies to subpart
§60.1	General applicability of the General Provisions	Yes
§60.2	Definitions	Yes
§60.3	Units and abbreviations	Yes
§60.4	Address	Yes
§60.5	Determination of construction or modification	Yes
§60.6	Review of plans	Yes
§60.7	Notification and Recordkeeping	Yes
§60.8	Performance tests	Yes
§60.9	Availability of information	Yes
§60.10	State Authority	Yes
§60.11	Compliance with standards and maintenance requirements	Yes
§60.12	Circumvention	Yes
§60.14	Modification	Yes
§60.15	Reconstruction	Yes
§60.16	Priority list	Yes
§60.17	Incorporations by reference	Yes
§60.19	General notification and reporting requirements	Yes

[7/28/17]

5 Incorporation by Reference

Unless expressly provided otherwise, any reference in this permit to any document identified in IDAPA 58.01.01.107.03 shall constitute the full incorporation into this permit of that document for the purposes of the reference, including any notes and appendices therein. Documents include, but are not limited to:

- Standards of Performance for New Stationary Sources (NSPS), 40 CFR Part 60 Subpart A, WWW & JJJJ
- National Emissions Standards for Hazardous Air Pollutants (NESHAP), 40 CFR 63 Subpart AAAA

For permit conditions referencing or cited in accordance with any document incorporated by reference (including permit conditions identified as NSPS or NESHAP), should there be any conflict between the requirements of the permit condition and the requirements of the document, the requirements of the document shall govern, including any amendments to that regulation.

6 General Provisions

General Compliance

- 6.1 The permittee has a continuing duty to comply with all terms and conditions of this permit. All emissions authorized herein shall be consistent with the terms and conditions of this permit and the "Rules for the Control of Air Pollution in Idaho." The emissions of any pollutant in excess of the limitations specified herein, or noncompliance with any other condition or limitation contained in this permit, shall constitute a violation of this permit, the "Rules for the Control of Air Pollution in Idaho," and the Environmental Protection and Health Act (Idaho Code §39-101, et seq.)
- [Idaho Code §39-101, et seq.]
- 6.2 The permittee shall at all times (except as provided in the "Rules for the Control of Air Pollution in Idaho") maintain in good working order and operate as efficiently as practicable all treatment or control facilities or systems installed or used to achieve compliance with the terms and conditions of this permit and other applicable Idaho laws for the control of air pollution.
- [IDAPA 58.01.01.211, 5/1/94]
- 6.3 Nothing in this permit is intended to relieve or exempt the permittee from the responsibility to comply with all applicable local, state, or federal statutes, rules, and regulations.
- [IDAPA 58.01.01.212.01, 5/1/94]

Inspection and Entry

- 6.4 Upon presentation of credentials, the permittee shall allow DEQ or an authorized representative of DEQ to do the following:
- Enter upon the permittee's premises where an emissions source is located, emissions-related activity is conducted, or where records are kept under conditions of this permit;
 - Have access to and copy, at reasonable times, any records that are kept under the conditions of this permit;
 - Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
 - As authorized by the Idaho Environmental Protection and Health Act, sample or monitor, at reasonable times, substances or parameters for the purpose of determining or ensuring compliance with this permit or applicable requirements.
- [Idaho Code §39-108]

Construction and Operation Notification

- 6.5 This permit shall expire if construction has not begun within two years of its issue date, or if construction is suspended for one year.
- [IDAPA 58.01.01.211.02, 5/1/94]
- 6.6 The permittee shall furnish DEQ written notifications as follows:
- A notification of the date of initiation of construction, within five working days after occurrence; except in the case where pre-permit construction approval has been granted then notification shall be made within five working days after occurrence or within five working days after permit issuance whichever is later;
 - A notification of the date of any suspension of construction, if such suspension lasts for one year or more;

- A notification of the anticipated date of initial start-up of the stationary source or facility not more than sixty days or less than thirty days prior to such date; and
- A notification of the actual date of initial start-up of the stationary source or facility within fifteen days after such date; and
- A notification of the initial date of achieving the maximum production rate, within five working days after occurrence - production rate and date.

[IDAPA 58.01.01.211.03, 5/1/94]

Performance Testing

- 6.7 If performance testing (air emissions source test) is required by this permit, the permittee shall provide notice of intent to test to DEQ at least 15 days prior to the scheduled test date or shorter time period as approved by DEQ. DEQ may, at its option, have an observer present at any emissions tests conducted on a source. DEQ requests that such testing not be performed on weekends or state holidays.
- 6.8 All performance testing shall be conducted in accordance with the procedures in IDAPA 58.01.01.157. Without prior DEQ approval, any alternative testing is conducted solely at the permittee's risk. If the permittee fails to obtain prior written approval by DEQ for any testing deviations, DEQ may determine that the testing does not satisfy the testing requirements. Therefore, at least 30 days prior to conducting any performance test, the permittee is encouraged to submit a performance test protocol to DEQ for approval. The written protocol shall include a description of the test method(s) to be used, an explanation of any or unusual circumstances regarding the proposed test, and the proposed test schedule for conducting and reporting the test.
- 6.9 Within 60 days following the date in which a performance test required by this permit is concluded, the permittee shall submit to DEQ a performance test report. The written report shall include a description of the process, identification of the test method(s) used, equipment used, all process operating data collected during the test period, and test results, as well as raw test data and associated documentation, including any approved test protocol.

[IDAPA 58.01.01.157, 4/5/00 and 4/11/15]

Monitoring and Recordkeeping

- 6.10 The permittee shall maintain sufficient records to ensure compliance with all of the terms and conditions of this permit. Monitoring records shall include, but not be limited to, the following: (a) the date, place, and times of sampling or measurements; (b) the date analyses were performed; (c) the company or entity that performed the analyses; (d) the analytical techniques or methods used; (e) the results of such analyses; and (f) the operating conditions existing at the time of sampling or measurement. All monitoring records and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes, but is not limited to, all calibration and maintenance records, all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. All records required to be maintained by this permit shall be made available in either hard copy or electronic format to DEQ representatives upon request.

[IDAPA 58.01.01.211, 5/1/94]

Excess Emissions

- 6.11 The permittee shall comply with the procedures and requirements of IDAPA 58.01.01.130–136 for excess emissions due to start-up, shut-down, scheduled maintenance, safety measures, upsets, and breakdowns.

[IDAPA 58.01.01.130–136, 4/5/00]

Certification

- 6.12 All documents submitted to DEQ—including, but not limited to, records, monitoring data, supporting information, requests for confidential treatment, testing reports, or compliance certification—shall contain a certification by a responsible official. The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document(s) are true, accurate, and complete.

[IDAPA 58.01.01.123, 5/1/94]

False Statements

- 6.13 No person shall knowingly make any false statement, representation, or certification in any form, notice, or report required under this permit or any applicable rule or order in force pursuant thereto.

[IDAPA 58.01.01.125, 3/23/98]

Tampering

- 6.14 No person shall knowingly render inaccurate any monitoring device or method required under this permit or any applicable rule or order in force pursuant thereto.

[IDAPA 58.01.01.126, 3/23/98]

Transferability

- 6.15 This permit is transferable in accordance with procedures listed in IDAPA 58.01.01.209.06.

[IDAPA 58.01.01.209.06, 4/11/06]

Severability

- 6.16 The provisions of this permit are severable, and if any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

[IDAPA 58.01.01.211, 5/1/94]