

Statement of Basis

Tier I Operating Permit No. T1-2011.0076

Project ID 60806

Milner Butte Landfill

Burley, Idaho

Facility ID 031-00046

Final



April 20, 2012

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Permit Writer

The purpose of this Statement of Basis is to set forth the legal and factual basis for the Tier I operating permit terms and conditions including references to the applicable statutory or regulatory provisions for the terms and conditions as required by IDAPA 58.01.01.362

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APPENDIX A – EMISSIONS INVENTORY

1. ACRONYMS, UNITS, AND CHEMICAL NOMENCLATURE

ASTM	American Society for Testing and Materials
Btu/hr	British thermal units per hour
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CFR	Code of Federal Regulations
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	CO ₂ equivalent emissions
DEQ	Department of Environmental Quality
EPA	U.S. Environmental Protection Agency
gr/dscf	grains (1 lb = 7,000 grains) per dry standard cubic foot
HAP	hazardous air pollutants
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
MACT	Maximum Achievable Control Technology
Mg/yr	Megagrams per year
MMscf	million standard cubic feet
MRRR	Monitoring, Recordkeeping and Reporting Requirements
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides
NSPS	New Source Performance Standards
O ₂	oxygen
PM	particulate matter
PM _{2.5}	particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers
PM ₁₀	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
ppm	parts per million
ppmv	parts per million by volume
PSD	Prevention of Significant Deterioration
PTC	permit to construct
<i>Rules</i>	<i>Rules for the Control of Air Pollution in Idaho</i>
SIP	State Implementation Plan
SO _x	sulfur oxides
T/day	tons per calendar day
T/hr	tons per hour
T/yr	tons per consecutive 12-calendar month period
Ti	Tier I operating permit
TAP	toxic air pollutants
U.S.C.	United States Code
VOC	volatile organic compound

2. INTRODUCTION AND APPLICABILITY

At the time of this permitting action, the facility is not a major source of HAP emissions. As a major facility, Milner Butte Landfill is required to apply for a Tier I operating permit pursuant to IDAPA 58.01.01.301. The application for a Tier I operating permit must contain a certification from Milner Butte Landfill as to its compliance status with all applicable requirements (IDAPA 58.01.01.314.09).

IDAPA 58.01.01.362 requires that as part of its review of the Tier I application, DEQ shall prepare a technical memorandum (i.e. statement of basis) that sets forth the legal and factual basis for the draft Tier I operating permit terms and conditions including reference to the applicable statutory provisions or the draft denial. This document provides the basis for the draft Tier I operating permit for Milner Butte Landfill.

The format of this Statement of Basis follows that of the permit with the exception of the facility's information discussed first followed by the scope, the applicable requirements and permit shield, and finally the general provisions.

Milner Butte Landfill Tier I operating permit is organized into sections. They are as follows:

Section 2 – Tier I Operating Permit Scope

The scope describes this permitting action.

Section 3 – Facility-Wide Conditions

The Facility-wide Conditions section contains the applicable requirements (permit conditions) that apply facility-wide. Where required, monitoring, recordkeeping and reporting requirements sufficient to assure compliance with each permit condition follows the permit condition.

Section 4 – Emissions Unit/Source Name

The emissions unit-specific sections of the permit contain the applicable requirements that specially apply to each regulated emissions unit. Some requirements that apply to an emissions unit (e.g. opacity limits) may be contained in the facility-wide conditions. As with the facility-wide conditions, monitoring, recordkeeping and reporting requirements sufficient to assure compliance with each applicable requirement immediately follows the applicable requirement.

Section 5 –Insignificant Activities

This section lists those emissions units and activities determined to be insignificant activities based on size or production as allowed by IDAPA 58.01.01.317.01.b.

Section 6 – General Provisions

The final section of the permit contains standard terms and conditions that apply to all major facilities subject to IDAPA 58.01.01.300. This section is the same for all Tier I sources. These conditions have been reviewed by EPA and contain all terms required by IDAPA 58.01.01 et al as well as requirements from other air quality laws and regulations. Each general provision has been paraphrased so it is more easily understood by the general public; however, there is no intent to alter the effect of the requirement. Should there be a discrepancy between a paraphrased general provision in this statement of basis and the rule or permit, the rule or permit shall govern.

3. FACILITY INFORMATION

3.1 Facility Description

The Milner Butte Landfill (MBL), owned and operated by Southern Idaho Regional Solid Waste District (SISW), is located in Burley, Idaho. The MBL is located in Western Cassia 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 and currently consists of four existing contiguous solid waste disposal units (cells) occupying approximately 58 acres. 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) was constructed during 2009 and is currently being evaluated for system performance and well coverage. To increase coverage, five (5) vertical extraction wells were installed in May 2010 and connected to the system on June 5, 2010. The GCCS consists of a header piping network, vertical gas extraction wells, horizontal gas collectors, condensate collection, connections to the existing Leachate Collection and Recovery System (LCRS), and a blower/flare station.

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

3.1 Facility Permitting History

This is the initial permit for the facility.

4. APPLICATION SCOPE AND APPLICATION CHRONOLOGY

4.1 Application Scope

This permit is the initial Tier I operating permit for this facility.

4.2 Application Chronology

January 14, 2011	DEQ received an application
March 4, 2011	DEQ determined that the application was incomplete.
May 10, 2011	DEQ received supplemental information from the applicant.
October 14, 2011	DEQ determined that the application was complete.
February 14, 2012	DEQ issued facility draft permit
March 2, 2012	No comments were received from facility
March 9-April 9, 2012	DEQ provided a public comment period on the proposed action.
April 11, 2012	DEQ issued proposed permit for EPA review
April 20, 2012	DEQ received letter from EPA that no comments will be made

5. EMISSIONS UNITS, PROCESS DESCRIPTION(S), AND EMISSIONS INVENTORY

This section lists the emissions units, describes the production or manufacturing processes, and provides the emissions inventory for this facility. The information presented was provided by the applicant in its permit application. Also listed in this section are the insignificant activities based on size or production rate.

5.1 Process No. 1 – LANDFILL

Table 5.1 lists the emissions units and control devices associated with the landfill.

Table 5.1 EMISSIONS UNITS, CONTROL DEVICE, AND DISCHARGE POINT INFORMATION

Emissions Unit Description	Control Device (if applicable)
Landfill	Flare

5.2 Insignificant Emissions Units Based on Size or Production Rate

No emissions unit or activity subject to an applicable requirement may qualify as an insignificant emissions unit or activity. As required by IDAPA 58.01.01.317.01.b, insignificant emissions units (IEU's) based on size or production rate must be listed in the permit application. Table 5.4 lists the IEU's identified in the permit application. Also summarized is the regulatory authority or justification for each IEU.

Table 5.4 INSIGNIFICANT EMISSION UNITS AND REGULATORY AUTHORITY/JUSTIFICATION

Emissions Unit / Activity	Regulatory Authority / Justification
Mobile transport tanks on vehicles	a.i.2
Brazing, soldering, and welding equipment	a.i.12
Portable electrical generators	a.i.19
Plastic pipe welding	a.i.26
Plant maintenance	a.i.28
Maintenance of paved streets	a.i.30
General vehicle maintenance	a.i.40
Comfort air conditioning or air cooling systems	a.i.41
Fire suppression systems	a.i.46
Repair and maintenance shop activities	a.i.64
Solid waste containers	a.i.69
Air compressors	a.i.78
Sludge dewatering and wet sludge handling	a.i.100
Diesel storage tanks	b.i.3
350,000 BTU/hr Combustion source	b.i.6

The permit application identified the units subject to IDAPA 58.01.01.317.a, although only those units subject to IDAPA 58.01.01.b.i are required to be in the permit application. Only the b.i sources have been listed in the permit.

5.3 Non-applicable Requirements for Which a Permit Shield is Requested

The facility did not make any specific permit shield request.

5.4 Emissions Inventory

Table 5.5 summarizes the emissions inventory for this facility. All values are expressed in units of tons-per-year and represent the facility's potential to emit. Potential to emit is defined as the maximum capacity of a facility or stationary source to emit an air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the facility or source to emit an air pollutant, including air pollution control equipment and restrictions on hour of operation or on the type or amount of material combusted, stored or processed shall be treated as part of its design if the limitation or the effect it would have on emission is state or federally enforceable.

Listed below Table 5.5 are the references for the emission factors used to estimate the emissions. The documentation provided by the applicant for the emissions inventory and emission factors is provided as Appendix A of this statement of basis.

Table 5.5 EMISSIONS INVENTORY – POTENTIAL TO EMIT (T/yr)

Source Description	PM ₁₀ T/yr	NO _x T/yr	SO ₂ T/yr	CO T/yr	VOC T/yr	Lead T/yr	HAP T/yr
Flare	3.29	11.83	51.5	39.4	0.83	0.00	0.03

6. EMISSIONS LIMITS AND MRRR

This section contains the applicable requirements for this major facility. Where applicable, monitoring, recordkeeping and reporting requirements (MRRR) follow the applicable requirement and state how compliance with the applicable requirement is to be demonstrated.

This section is divided into several subsections. The first subsection lists the requirements that apply facility wide. The next subsection lists the emissions units- and emissions activities-specific applicable requirements. The final subsection contains the general provisions that apply to all major facilities subject to Idaho DEQ's Tier I operating permit requirements.

This section contains the following subsections:

- Facility-Wide Conditions;
- EMISSIONS UNIT No. 1 Emissions Limits;
- Tier I Operating Permit General Provisions.

MRRR

Immediately following each applicable requirement (permit condition) is the periodic monitoring regime upon which compliance with the underlying applicable requirement is demonstrated. A periodic monitoring regime consists of monitoring, recordkeeping and reporting requirements for each applicable requirement. If an applicable requirement does not include sufficient monitoring, recordkeeping and reporting to satisfy IDAPA 58.01.01.322.06, 07, and 08, then the permit must establish adequate monitoring, recordkeeping and reporting sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit. This is known as gap filling.

The discussion of each permit condition includes the legal and factual basis for the permit condition. If a permit condition was changed due to facility draft or public comments, describe why and how the condition was changed. See instructions on the cover page for Appendix D for other options.

State Enforceability

An applicable requirement that is not required by the federal CAA and has not been approved by EPA as a SIP-approved requirement is identified as a "State-only" requirement and is enforceable only under state law. State-only requirements are not enforceable by the EPA or citizens under the CAA. State-only requirements are identified in the permit within the citation of the legal authority for the permit condition.

Federal Enforceability

Unless identified as "State-only," all applicable requirements, including MRRR, are state and federally enforceable. It should be noted that while a violation of a MRRR is a violation of the permit, it is not necessarily a violation of the underlying applicable requirement (e.g. emissions limit).

To minimize the length of this document, the MRRR for the facility-wide permit conditions has been paraphrased. Refer to the permit for the complete requirement.

6.1 Facility-wide Conditions

Permit Condition 2.1 – Fugitive Dust

All reasonable precautions shall be taken to prevent PM from becoming airborne in accordance with IDAPA 58.01.01.650-651.

[IDAPA 58.01.01.650-651, 3/30/07]

MRRR (Permit Conditions 2.2 through 2.4)

- Monitor and maintain records of the frequency and the methods used to control fugitive dust emissions;

- Maintain records of all fugitive dust complaints received and the corrective action taken in response to the complaint;
- Conduct a monthly facility-wide inspection of all sources of fugitive emissions. If any of the sources of fugitive dust are not being reasonably controlled, corrective action is required.
- Records of each fugitive dust inspection and corrective action taken are to be maintained at the permitted facility.

[IDAPA 58.01.01.322.06, 07, 08, 4/5/2000]

Permit Condition 2.5 – Odors

The permittee shall not allow, suffer, cause, or permit the emission of odorous gases, liquids, or solids to the atmosphere in such quantities as to cause air pollution.

[IDAPA 58.01.01.775-776 (State-only), 5/1/94]

MRRR (Permit Condition 2.6)

- Maintain records of all odor complaints received and the corrective action taken in response to the complaint;
- Take appropriate corrective action if the complaint has merit, and log the date and corrective action taken.

[IDAPA 58.01.01.322.06, 07 (State-only), 5/1/94]

Permit Condition 2.7 – Visible Emissions

The permittee shall not discharge any air pollutant to the atmosphere from any point of emission for a period or periods aggregating more than three minutes in any 60-minute period which is greater than 20% opacity as determined by procedures contained in IDAPA 58.01.01.625. These provisions shall not apply when the presence of uncombined water, nitrogen oxides, and/or chlorine gas is the only reason for the failure of the emission to comply with the requirements of this section.

[IDAPA 58.01.01.625, 4/5/00]

MRRR (Permit Condition 2.8)

- Conduct a monthly facility-wide inspection during daylight hours and under normal operating conditions for the purposes of observing points of visible emissions from all emissions units subject to the visible emissions standards.
- Sources that are monitored using a continuous opacity monitoring system (COMS) are not required to comply with this permit condition. Each inspection shall be conducted as follows:
 - Initial see/no see evaluation for each potential source of visible emissions. If any visible emissions are present from any point of emission, the permittee shall either:

Take appropriate corrective action as expeditiously as practicable to eliminate the visible emissions, and conduct another see/no see evaluation within 24 hours. If the visible emissions are not eliminated, the permittee shall comply with b).

OR

Perform a Method 9 opacity test in accordance with the procedures outlined in IDAPA 58.01.01.625. If the measured opacity is greater than 20% for the time period specified in Section 625, the permittee shall take corrective action and report the exceedance in its annual compliance certification and in accordance with IDAPA 58.01.01.130-136.

- Records of each visible emission inspection and each opacity test and corrective action taken are to be maintained at the permitted facility.

[IDAPA 58.01.01.322.06, 07, 5/1/94; IDAPA 58.01.01.322.08, 4/5/00]

Permit Condition 2.9 – Excess Emissions

The permittee shall comply with the procedures and requirements of IDAPA 58.01.01.130-136 for excess emissions. The provisions of IDAPA 58.01.01.130-136 shall govern in the event of conflicts between Permit Condition 2.9 and the regulations of IDAPA 58.01.01.130-136.

MRRR

Monitoring, recordkeeping and reporting requirements for excess emissions are provided in Sections 131 through 136.

Permit Condition 2.10 – Performance Testing

If performance testing is required, the permittee shall provide notice of intent to test to DEQ at least 15 days prior to the scheduled test or shorter time period as provided in a permit, order, consent decree, or by DEQ approval. DEQ may, at its option, have an observer present at any emissions tests conducted on a source. DEQ requests such testing not be performed on weekends or state holidays.

All 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, prior to conducting any performance test, the permittee is encouraged to submit in writing to DEQ, at least 30 days in advance, the following for approval:

- The type of method to be used
- Any extenuating or unusual circumstances regarding the proposed test
- The proposed schedule for conducting and reporting the test

The permittee shall submit a compliance test report for the respective test to DEQ within 30 days following the date in which a compliance test required by this permit is concluded. The compliance test report shall include all process operating data collected during the test period as well as the test results, raw test data, and associated documentation, including any approved test protocol.

The proposed test date(s), test date rescheduling notice(s), compliance test report, and all other correspondence shall be sent to the following address:

Air Quality Permit Compliance

Department of Environmental Quality

Twin Falls Regional Office

1363 Fillmore

Twin Falls, ID 83301

Phone: (208) 736-2190

Fax: (208) 736-2194

[IDAPA 58.01.01.157, 4/5/00; IDAPA 58.01.01.322.06, 08.a, 09, 5/1/94]

MRRR

No monitoring is required for this facility-wide condition. As with all permit conditions, Milner Butte Landfill must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

However, if performance testing is required, it is to be conducted in accordance with IDAPA 58.01.01.157, including any and all monitoring, recordkeeping and reporting requirements. Emissions-unit specific MRRR will be listed within the permit condition requiring performance testing permit condition.

Permit Condition 2.11 – Monitoring and Recordkeeping

The permittee shall maintain sufficient records to assure compliance with all of the terms and conditions of this operating permit. Records of monitoring information 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 58.01.01.322.07, 5/1/94]

MRRR

No monitoring is required for this facility-wide condition. As with all permit conditions, Milner Butte Landfill must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

Permit Condition 2.12 – Reports and Certifications

All periodic reports and certifications required by this permit shall be submitted to DEQ within 30 days of the end of each specified reporting period. Excess emissions reports and notifications shall be submitted in accordance with IDAPA 58.01.01.130-136. Reports, certifications, and notifications shall be submitted to:

Air Quality Permit Compliance
Department of Environmental Quality
Twin Falls Regional Office
1363 Fillmore
Twin Falls, ID 83301
Phone: (208) 736-2190 Fax: (208) 736-2194

The periodic compliance certification required by General Provision 21 shall also be submitted within 30 days of the end of the specified reporting period to:

EPA Region 10
Air Operating Permits, OAQ-107
1200 Sixth Ave.
Seattle, WA 98101

[IDAPA 58.01.01.322.08, 11, 5/1/94]

MRRR

No monitoring is required for this facility-wide condition. As with all permit conditions, Milner Butte Landfill must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

Permit Condition 2.13 – Fuel Burning Equipment PM Standards

The permittee shall not discharge PM to the atmosphere from any fuel-burning equipment in excess of 0.015 gr/dscf of effluent gas corrected to 3% oxygen by volume for gas, 0.050 gr/dscf of effluent gas corrected to 3% oxygen by volume for liquid, 0.050 gr/dscf of effluent gas corrected to 8% oxygen by volume for coal, and 0.080 gr/dscf of effluent gas corrected to 8% oxygen by volume for wood products.

MRRR

No monitoring is required for this facility-wide condition. As with all permit conditions, Milner Butte Landfill must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

Permit Condition 2.14 – Distillate Fuel Oil Sulfur Content Limits

The permittee shall not sell, distribute, use, or make available for use any distillate fuel oil containing more than the following percentages of sulfur:

- ASTM Grade 1 fuel oil - 0.3% by weight.
- ASTM Grade 2 fuel oil - 0.5% by weight.

[IDAPA 58.01.01.728, 5/1/94]

Permit Condition 2.14.1 – Coal Sulfur Content Limit

The permittee shall not sell, distribute, use, or make available for use, any coal containing greater than 1% sulfur by weight.

[IDAPA 58.01.01.729, 5/1/94]

MRRR – (Permit Condition 2.14.2)

The permittee shall maintain documentation of supplier verification of distillate fuel oil/coal sulfur content on an as-received basis.

[IDAPA 58.01.01.322.06, 5/1/94]

Permit Condition 2.15 – Open Burning

The permittee shall comply with the *Rules for Control of Open Burning*, IDAPA 58.01.01.600-623.

[IDAPA 58.01.01.600-623, 5/08/09]

MRRR

No monitoring is required for this facility-wide condition. As with all permit conditions, Milner Butte Landfill must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

Permit Condition 2.16 – Renovation/Demolition

The permittee shall comply with all applicable portions of 40 CFR 61, Subpart M when conducting any renovation or demolition activities at the facility.

[40 CFR 61, Subpart M]

MRRR

No monitoring is required for this facility-wide condition. As with all permit conditions, Milner Butte Landfill must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

Permit Condition 2.17 – Regulated Substances for Accidental Release Prevention

(a)

An owner or operator of a stationary source that has more than a threshold quantity of a regulated substance in a process, as determined under 40 CFR 68.115, shall comply with the requirements of the Chemical Accident Prevention Provisions at 40 CFR 68 no later than the latest of the following dates:

- Three years after the date on which a regulated substance present above a threshold quantity is first listed under 40 CFR 68.130.
- The date on which a regulated substance is first present above a threshold quantity in a process.

[40 CFR 68.10 (a)]

(b)

This facility is subject to 40 CFR Part 68 and shall certify compliance with all requirements of 40 CFR Part 68, including the registration and submission of the RMP, as part of the annual compliance certification required by 40 CFR 70.6(c)(5).

[40 CFR 68.215(a)(2); IDAPA 58.01.01.322.11, 4/6/05; 40 CFR 68.215(a)(ii)]

MRRR

No monitoring is required for this facility-wide condition. As with all permit conditions, Milner Butte Landfill must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

Permit Condition 2.18 – Recycling and Emissions Reductions

The permittee shall comply with applicable standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, Recycling and Emissions Reduction.

[40 CFR 82, Subpart F]

MRRR

No monitoring is required for this facility-wide condition. As with all permit conditions, Milner Butte Landfill must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

6.2 Emissions Unit-Specific Emissions Limits and MRR

Emissions Unit No. 1

Permit Condition 4.4

Hydrogen Sulfide Limit

The hydrogen sulfide concentration in the landfill gas being burned in the flare shall not exceed 785 ppmv.

MRRR – (Permit Conditions 4.18, 4.19, 4.20, and 4.22)

4.18 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. The H₂S concentration 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.

4.19 Hydrogen Sulfide (H₂S) Concentration Monitoring Schedule

- H₂S concentration monitoring shall occur as follows:
- Beginning the day following permit issuance, 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. 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 two weeks 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.

4.20 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.

4.22 Hydrogen Sulfide (H₂S) Reporting Requirements

H₂S concentration and gas flow rate measurement data shall be submitted to Idaho DEQ each month for H₂S concentration and gas flow rate data collected during the previous month. The initial report shall be submitted on the last day of the month following the month of permit issuance.

6.3 General Provisions

Unless expressly stated, there are no MRRR for the general provisions.

General Provision 1 – General Compliance, Duty to Comply

The permittee must comply with the terms and conditions of the permit.

[IDAPA 58.01.01.322.15.a, 5/1/94; 40 CFR 70.6(a)(6)(i)]

General Provision 2 – General Compliance, Need to Halt or Reduce Activity Not a Defense

The permittee cannot use the fact that it would have been necessary to halt or reduce an activity as a defense in an enforcement action.

[IDAPA 58.01.01.322.15.b, 5/1/94; 40 CFR 70.6(a)(6)(ii)]

General Provision 3 – General Compliance, Duty to Supplement or Correct Application

The permittee must promptly submit such supplementary facts or corrected information upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application. The permittee must also provide information as necessary to address any new requirements that become applicable after the date a complete application has been filed but prior to the release of a draft permit.

[IDAPA 58.01.01.315.01, 5/1/94; 40 CFR 70.5(b)]

General Provision 4 – Reopening, Additional Requirements, Material Mistakes, Etc.

This term lists the instances when the permit must be reopened and revised, including times when additional requirements become applicable, when the permit contains mistakes, or when revision or revocation is necessary to assure compliance with applicable requirements.

[IDAPA 58.01.01.322.15.c, 5/1/94; IDAPA 58.01.01.386, 3/19/99; 40 CFR 70.7(f)(1), (2); 40 CFR 70.6(a)(6)(iii)]

General Provision 5 – Reopening, Permitting Actions

This term discusses modification, revocation, reopening, and/or reissuance of the permit for cause. If Milner Butte Landfill files a request to modify, revoke, reissue, or terminate the permit, the request does not stay any permit condition, nor does notification of planned changes or anticipated noncompliance.

[IDAPA 58.01.01.322.15.d, 5/1/94; 40 CFR 70.6(a)(6)(iii)]

General Provision 6 – Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege.

[IDAPA 58.01.01.322.15.e, 5/1/94; 40 CFR 70.6(a)(6)(iv)]

General Provision 7 – Information Requests

The permittee must furnish, within a reasonable time to DEQ, any information, including records required by the permit, that is requested in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit.

[Idaho Code §39-108; IDAPA 58.01.01.122, 4/5/00; IDAPA 58.01.01.322.15.f, 4/5/00; 40 CFR 70.6(a)(6)(v)]

General Provision 8 – Information Requests, Confidential Business Information

Upon request, the permittee must furnish to DEQ copies of records required to be kept by this permit. For information claimed to be confidential, the permittee may furnish such records along with a claim of confidentiality in accordance with Idaho Code §9-342A and applicable implementing regulations including IDAPA 58.01.01.128.

[IDAPA 58.01.01.322.15.g, 5/1/94; IDAPA 58.01.01.128, 4/5/00; 40 CFR 70.6(a)(6)(v)]

General Provision 9 - Severability

If any provision of the permit is held to be invalid, all unaffected provisions of the permit will remain in effect and enforceable.

[IDAPA 58.01.01.322.15.h, 5/1/94; 40 CFR 70.6(a)(5)]

General Provision 10 – Changes Requiring Permit Revision or Notice

The permittee may not commence construction or modification of any stationary source, facility, major facility, or major modification without first obtaining all necessary permits to construct or an approval under IDAPA 58.01.01.213, or complying with IDAPA 58.01.01.220 through 223. The permittee must comply with IDAPA 58.01.01.380 through 386 as applicable.

[IDAPA 58.01.01.200-223, 4/2/08; IDAPA 58.01.01.322.15.i, 3/19/99; IDAPA 58.01.01.380-386, 7/1/02; 40 CFR 70.4(b)(12), (14), (15), and 70.7(d), (e)]

General Provision 11 – Changes Requiring Permit Revision or Notice.

Changes that are not addressed or prohibited by the Tier I operating permit require a Tier I operating permit revision if such changes are subject to any requirement under Title IV of the CAA, 42 U.S.C. Section 7651 through 7651c, or are modifications under Title I of the CAA, 42 U.S.C. Section 7401 through 7515. Administrative amendments (IDAPA 58.01.01.381), minor permit modifications (IDAPA 58.01.01.383), and significant permit modifications (IDAPA 58.01.01.382) require a revision to the Tier I operating permit. IDAPA 58.01.01.502(b)(10) changes are authorized in accordance with IDAPA 58.01.01.384. Off-permit changes and required notice are authorized in accordance with IDAPA 58.01.01.385.

[IDAPA 58.01.01.381-385, 7/1/02; IDAPA 58.01.01.209.05, 4/11/06; 40 CFR 70.4(b)(14) and (15)]

General Provisions 12 and 13 – Federal and State Enforceability

All permit conditions are federally enforceable unless specified in the permit as a state or local only requirement. State and local only requirements are not required under the CAA and are not enforceable by EPA or by citizens.

[IDAPA 58.01.01.322.15.j, 5/1/94; IDAPA 58.01.01.322.15.k, 3/23/98; Idaho Code §39-108; 40 CFR 70.6(b)(1) and (2)]

General Provision 14 – Inspection and Entry

Upon presentation of credentials, Milner Butte Landfill shall allow DEQ or an authorized representative of DEQ to do the following:

- Enter upon the permittee's premises where a Tier I source is located or 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; IDAPA 58.01.01.322.15.i, 5/1/94; 40 CFR 70.6(c)(2)]

General Provision 15 – New Requirements During the Permit Term

The permittee must continue to comply with all applicable requirements and must comply with new requirements on a timely basis.

[IDAPA 58.01.01.322.10, 4/5/00; IDAPA 58.01.01.314.10.a.ii, 5/1/94; 40 CFR 70.6(c)(3) citing 70.5(c)(8)]

General Provision 16 – Fees

The owner or operator of a Tier I source shall pay annual registration fees to DEQ in accordance with IDAPA 58.01.01.387 through IDAPA 58.01.01.397.

[IDAPA 58.01.01.387, 4/2/03; 40 CFR 70.6(a)(7)]

General Provision 17 – Certification

All documents submitted to DEQ shall be certified in accordance with IDAPA 58.01.01.123 and comply with IDAPA 58.01.01.124.

[IDAPA 58.01.01.322.15.o, 5/1/94; 40 CFR 70.6(a)(3)(iii)(A); 40 CFR 70.5(d)]

General Provision 18 – Renewal

The permittee shall submit an application to DEQ for a renewal of this permit at least six months before, but no earlier than 18 months before, the expiration date of this operating permit. To ensure that the term of the operating permit does not expire before the permit is renewed, the owner or operator is encouraged to submit a renewal application nine months prior to the date of expiration.

[IDAPA 58.01.01.313.03, 4/5/00; 40 CFR 70.5(a)(1)(iii)]

If a timely and complete application for a Tier I operating permit renewal is submitted, but DEQ fails to issue or deny the renewal permit before the end of the term of this permit, then all the terms and conditions of this permit including any permit shield that may have been granted pursuant to IDAPA 58.01.01.325 shall remain in effect until the renewal permit has been issued or denied.

[IDAPA 58.01.01.322.15.p, 5/1/94; 40 CFR 70.7(b)]

General Provision 19 – Permit Shield

Compliance with the terms and conditions of the Tier I operating permit, including those applicable to all alternative operating scenarios and trading scenarios, shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that:

- Such applicable requirements are included and are specifically identified in the Tier I operating permit; or
 - DEQ has determined that other requirements specifically identified are not applicable and all of the criteria set forth in IDAPA 58.01.01.325.01(b) have been met.
- The permit shield shall apply to permit revisions made in accordance with IDAPA 58.01.01.381.04 (administrative amendments incorporating the terms of a permit to construct), IDAPA 58.01.01.382.04 (significant modifications), and IDAPA 58.01.01.384.03 (trading under an emissions cap).

- Nothing in this permit shall alter or affect the following:
 - Any administrative authority or judicial remedy available to prevent or terminate emergencies or imminent and substantial dangers;
 - The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
 - The applicable requirements of the acid rain program, consistent with 42 U.S.C. Section 7651(g)(a); and
 - The ability of EPA to obtain information from a source pursuant to Section 114 of the CAA; or the ability of DEQ to obtain information from a source pursuant to Idaho Code §39-108 and IDAPA 58.01.01.122.

**[Idaho Code §39-108 and 112; IDAPA 58.01.01.122, 4/5/00;
IDAPA 58.01.01.322.15.m, 325.01, 5/1/94; IDAPA 58.01.01.325.02, 3/19/99;
IDAPA 58.01.01.381.04, 382.04, 383.05, 384.03, 385.03, 3/19/99; 40 CFR 70.6(f)]**

General Provision 20 – Compliance Schedule and Progress Reports.

- For each applicable requirement for which the source is not in compliance, the permittee shall comply with the compliance schedule incorporated in this permit.
- For each applicable requirement that will become effective during the term of this permit and that provides a detailed compliance schedule, the permittee shall comply with such requirements in accordance with the detailed schedule.
- For each applicable requirement that will become effective during the term of this permit that does not contain a more detailed schedule, the permittee shall meet such requirements on a timely basis.
- For each applicable requirement with which the permittee is in compliance, the permittee shall continue to comply with such requirements.

**[IDAPA 58.01.01.322.10, 4/5/00; IDAPA 58.01.01.314.9, 5/1/94; IDAPA 58.01.01.314.10, 4/5/00;
40 CFR 70.6(c)(3) and (4)]**

General Provision 21 – Periodic Compliance Certification

- The permittee shall submit compliance certifications during the term of the permit for each emissions unit to DEQ and the EPA as follows:
- The compliance certifications for all emissions units shall be submitted annually from DATE January 1st to December 31st or more frequently if specified by the underlying applicable requirement or elsewhere in this permit.
- The initial compliance certification for each emissions unit shall address all of the terms and conditions contained in the Tier I operating permit that are applicable to such emissions unit including emissions limitations, standards, and work practices;
 - The compliance certification shall be in an itemized form providing the following information (provided that the identification of applicable information may cross-reference the permit or previous reports as applicable):
 - The identification of each term or condition of the Tier I operating permit that is the basis of the certification;
 - The identification of the method(s) or other means used by the owner or operator for determining the compliance status with each term and condition during the certification period. Such methods and other means shall include, at a minimum, the methods and means required under Subsections 322.06, 322.07, and 322.08;
 - The status of compliance with the terms and conditions of the Tier I operating permit for the period covered by the certification, including whether compliance during the period was

continuous or intermittent. The certification shall be based on the method or means designated in Subsection 322.11.c.ii. above. The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion or exceedance as defined under 40 CFR Part 64 occurred; and

- Such information as the Department may require to determine the compliance status of the emissions unit.
- All original compliance certifications shall be submitted to DEQ and a copy of all compliance certifications shall be submitted to the EPA.

[IDAPA 58.01.01.322.11, 4/6/05; 40 CFR 70.6(c)(5)(iii) as amended, 62 Fed. Reg. 54900, 54946 (10/22/97); 40 CFR 70.6(c)(5)(iv)]

General Provision 22 – False Statements

The permittee may not 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]

General Provision 23 – No Tampering

The permittee may not 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]

General Provision 24 – Semiannual Monitoring Reports.

In addition to all applicable reporting requirements identified in this permit, the permittee shall submit reports of any required monitoring at least every six months. Semiannual reporting periods shall be from January 1st to June 30th and July 1st through December 31st. All instances of deviations from this operating permit's requirements must be clearly identified in the report. The semiannual reports shall be submitted to DEQ within 30 days of the end of the specified reporting period.

[IDAPA 58.01.01.322.15.q, 3/23/98; IDAPA 58.01.01.322.08.c, 4/5/00; 40 CFR 70.6(a)(3)(iii)]

General Provision 25 – Reporting Deviations and Excess Emissions

Each and every applicable requirement, including MRRR, is subject to prompt deviation reporting. Deviations due to excess emissions must be reported in accordance Sections 130-136. All instances of deviation from Tier I operating permit requirements must be included in the deviation reports. The reports must describe the probable cause of the deviation and any corrective action or preventative measures taken. Deviation reports must be submitted at least every six months unless the permit specifies a different time period as required by IDAPA 58.01.01.322.08.c. Examples of deviations include, but are not limited to, the following:

- Any situation in which an emissions unit fails to meet a permit term or condition
- Emission control device does not meet a required operating condition
- Observations or collected data that demonstrate noncompliance with an emissions standard
- Failure to comply with a permit term that requires a report

[IDAPA 58.01.01.322.15.q, 3/23/98; IDAPA 58.01.01.135, 4/11/06; 40 CFR 70.6(a)(3)(iii)]

General Provision 26 – Permit Revision Not Required, Emissions Trading

No permit revision will be required, under any approved, economic incentives, marketable permits, emissions trading, and other similar programs or processes, for changes that are provided for in the permit.

[IDAPA 58.01.01.322.05.b, 4/5/00; 40 CFR 70.6(a)(8)]

General Provision 27 – Emergency

In accordance with IDAPA 58.01.01.332, an “emergency” as defined in IDAPA 58.01.01.008, constitutes an affirmative defense to an action brought for noncompliance with such technology-based emissions limitation if the conditions of IDAPA 58.01.01.332.02 are met.

[IDAPA 58.01.01.332.01, 4/5/00; 40 CFR 70.6(g)]

7. REGULATORY REVIEW

7.1 Attainment Designation (40 CFR 81.313)

The facility is located in Cassia County which is designated as attainment or unclassifiable for PM₁₀, PM_{2.5}, CO, NO₂, SO_x, and Ozone. Reference 40 CFR 81.313.

7.2 Title V Classification (IDAPA 58.01.01.300, 40 CFR Part 70)

IDAPA 58.01.01.301 Requirement to Obtain Tier I Operating Permit

In accordance with IDAPA 58.01.01.859.04.c, the facility must submit a complete Federal Operating Permit application within one year of becoming subject to this requirement. The facility became subject to this requirement with the promulgation of the NSPS Subpart WWW on March 16, 1996 and subsequent design capacity report submittal required by June 10, 1996. The application was required to be submitted within one year of this date (June 10, 1997). The application was submitted on January 4, 2011.

7.3 PSD Classification (40 CFR 52.21)

40 CFR 52.21 Prevention of Significant Deterioration of Air Quality

This facility is not one of the designated facilities and does not have facility-wide emissions for any criteria pollutant, including NMOC emissions, that exceed 250 T/yr. In addition, the facility is not undergoing any physical change at a stationary source not otherwise qualifying under paragraph 40 CFR 52.21(b)(1) as a major stationary source, that would constitute a major stationary source by itself as defined in 40 CFR 52. Therefore, in accordance with 40 CFR 52.21(a)(2), the PSD requirements do not apply.

7.4 NSPS Applicability (40 CFR 60)

The facility is not subject to the requirements of 40 CFR 60 Subpart Cc – Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills.

The facility is subject to the requirements of 40 CFR 60 Subpart WWW – Standards of Performance for Municipal Solid Waste Landfills.

40 CFR 60, Subpart Cc Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills

§ 60.30c Scope.

This subpart contains emission guidelines and compliance times for the control of certain designated pollutants from certain designated municipal solid waste landfills in accordance with section 111(d) of the Act and subpart B.

Break in section

§ 60.32c Designated facilities.

(a) The designated facility to which the guidelines apply is each existing MSW landfill for which construction, reconstruction or modification was commenced before May 30, 1991.

This facility was constructed in 1993, which is after May 30, 1991, so this subpart does not apply.

40 CFR 60, Subpart WWW Standards of Performance for Municipal Solid Waste Landfills

§ 60.750 Applicability, designation of affected facility, and delegation of authority.

(a) The provisions of this subpart apply to each municipal solid waste landfill that commenced construction, reconstruction or modification on or after May 30, 1991. Physical or operational changes

made to an existing MSW landfill solely to comply with subpart Cc of this part are not considered construction, reconstruction, or modification for the purposes of this section.

This landfill commenced construction in 1993, which is after May 30, 1991, so this subpart applies.

(b) The following authorities shall be retained by the Administrator and not transferred to the State: §60.754(a)(5).

(c) Activities required by or conducted pursuant to a CERCLA, RCRA, or State remedial action are not considered construction, reconstruction, or modification for purposes of this subpart.

§ 60.751 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act or in subpart A of this part.

Active collection system means a gas collection system that uses gas mover equipment.

Active landfill means a landfill in which solid waste is being placed or a landfill that is planned to accept waste in the future.

Closed landfill means a landfill in which solid waste is no longer being placed, and in which no additional solid wastes will be placed without first filing a notification of modification as prescribed under §60.7(a)(4). Once a notification of modification has been filed, and additional solid waste is placed in the landfill, the landfill is no longer closed.

Closure means that point in time when a landfill becomes a closed landfill.

Commercial solid waste means all types of solid waste generated by stores, offices, restaurants, warehouses, and other nonmanufacturing activities, excluding residential and industrial wastes.

Controlled landfill means any landfill at which collection and control systems are required under this subpart as a result of the nonmethane organic compounds emission rate. The landfill is considered controlled at the time a collection and control system design plan is submitted in compliance with §60.752(b)(2)(i).

Design capacity means the maximum amount of solid waste a landfill can accept, as indicated in terms of volume or mass in the most recent permit issued by the State, local, or Tribal agency responsible for regulating the landfill, plus any in-place waste not accounted for in the most recent permit. If the owner or operator chooses to convert the design capacity from volume to mass or from mass to volume to demonstrate its design capacity is less than 2.5 million megagrams or 2.5 million cubic meters, the calculation must include a site specific density, which must be recalculated annually.

Disposal facility means all contiguous land and structures, other appurtenances, and improvements on the land used for the disposal of solid waste.

Emission rate cutoff means the threshold annual emission rate to which a landfill compares its estimated emission rate to determine if control under the regulation is required.

Enclosed combustor means an enclosed firebox which maintains a relatively constant limited peak temperature generally using a limited supply of combustion air. An enclosed flare is considered an enclosed combustor.

Flare means an open combustor without enclosure or shroud.

Gas mover equipment means the equipment (i.e., fan, blower, compressor) used to transport landfill gas through the header system.

Household waste means any solid waste (including garbage, trash, and sanitary waste in septic tanks) derived from households (including, but not limited to, single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas).

Industrial solid waste means solid waste generated by manufacturing or industrial processes that is not a hazardous waste regulated under Subtitle C of the Resource Conservation and Recovery Act, parts 264 and 265 of this title. Such waste may include, but is not limited to, waste resulting from the following manufacturing processes: electric power generation; fertilizer/agricultural chemicals; food and related products/by-products; inorganic chemicals; iron and steel manufacturing; leather and leather products; nonferrous metals manufacturing/foundries; organic chemicals; plastics and resins manufacturing; pulp and paper industry; rubber and miscellaneous plastic products; stone, glass, clay, and concrete products; textile manufacturing; transportation equipment; and water treatment. This term does not include mining waste or oil and gas waste.

Interior well means any well or similar collection component located inside the perimeter of the landfill waste. A perimeter well located outside the landfilled waste is not an interior well.

Landfill means an area of land or an excavation in which wastes are placed for permanent disposal, and that is not a land application unit, surface impoundment, injection well, or waste pile as those terms are defined under §257.2 of this title.

Lateral expansion means a horizontal expansion of the waste boundaries of an existing MSW landfill. A lateral expansion is not a modification unless it results in an increase in the design capacity of the landfill.

Modification means an increase in the permitted volume design capacity of the landfill by either horizontal or vertical expansion based on its permitted design capacity as of May 30, 1991. Modification does not occur until the owner or operator commences construction on the horizontal or vertical expansion.

Municipal solid waste landfill or MSW landfill means an entire disposal facility in a contiguous geographical space where household waste is placed in or on land. An MSW landfill may also receive other types of RCRA Subtitle D wastes (§257.2 of this title) such as commercial solid waste, nonhazardous sludge, conditionally exempt small quantity generator waste, and industrial solid waste. Portions of an MSW landfill may be separated by access roads. An MSW landfill may be publicly or privately owned. An MSW landfill may be a new MSW landfill, an existing MSW landfill, or a lateral expansion.

Municipal solid waste landfill emissions or MSW landfill emissions means gas generated by the decomposition of organic waste deposited in an MSW landfill or derived from the evolution of organic compounds in the waste.

NMOC means nonmethane organic compounds, as measured according to the provisions of §60.754.

Nondegradable waste means any waste that does not decompose through chemical breakdown or microbiological activity. Examples are, but are not limited to, concrete, municipal waste combustor ash, and metals.

Passive collection system means a gas collection system that solely uses positive pressure within the landfill to move the gas rather than using gas mover equipment.

Sludge means any solid, semisolid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility, exclusive of the treated effluent from a wastewater treatment plant.

Solid waste means any garbage, sludge from a wastewater treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges that are point sources subject to permits under 33 U.S.C. 1342, or source, special nuclear, or by-product material as defined by the Atomic Energy Act of 1954, as amended (42 U.S.C 2011 et seq.).

Sufficient density means any number, spacing, and combination of collection system components, including vertical wells, horizontal collectors, and surface collectors, necessary to maintain emission and migration control as determined by measures of performance set forth in this part.

Sufficient extraction rate means a rate sufficient to maintain a negative pressure at all wellheads in the collection system without causing air infiltration, including any wellheads connected to the system as a result of expansion or excess surface emissions, for the life of the blower.

§ 60.752 *Standards for air emissions from municipal solid waste landfills.*

(a) Each owner or operator of an MSW landfill having a design capacity less than 2.5 million megagrams by mass or 2.5 million cubic meters by volume shall submit an initial design capacity report to the Administrator as provided in §60.757(a). The landfill may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. Any density conversions shall be documented and submitted with the report. Submittal of the initial design capacity report shall fulfill the requirements of this subpart except as provided for in paragraphs (a)(1) and (a)(2) of this section.

(1) The owner or operator shall submit to the Administrator an amended design capacity report, as provided for in §60.757(a)(3).

(2) When an increase in the maximum design capacity of a landfill exempted from the provisions of §60.752(b) through §60.759 of this subpart on the basis of the design capacity exemption in paragraph (a) of this section results in a revised maximum design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters, the owner or operator shall comply with the provision of paragraph (b) of this section.

(b) Each owner or operator of an MSW landfill having a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters, shall either comply with paragraph (b)(2) of this section or calculate an NMOC emission rate for the landfill using the procedures specified in §60.754. The NMOC emission rate shall be recalculated annually, except as provided in §60.757(b)(1)(ii) of this subpart. The owner or operator of an MSW landfill subject to this subpart with a design capacity greater than or equal to 2.5 million megagrams and 2.5 million cubic meters is subject to part 70 or 71 permitting requirements.

The facility is complying with paragraph (b)(2) of this section.

The facility has applied for a Title V permit.

(1) If the calculated NMOC emission rate is less than 50 megagrams per year, the owner or operator shall:

(i) Submit an annual emission report to the Administrator, except as provided for in §60.757(b)(1)(ii); and

(ii) Recalculate the NMOC emission rate annually using the procedures specified in §60.754(a)(1) until such time as the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, or the landfill is closed.

(A) If the NMOC emission rate, upon recalculation required in paragraph (b)(1)(ii) of this section, is equal to or greater than 50 megagrams per year, the owner or operator shall install a collection and control system in compliance with paragraph (b)(2) of this section.

(B) If the landfill is permanently closed, a closure notification shall be submitted to the Administrator as provided for in §60.757(d).

(2) If the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, the owner or operator shall:

The calculated uncontrolled NMOC emission rate is 58 megagrams per year, which is greater than 50 megagrams.

(i) Submit a collection and control system design plan prepared by a professional engineer to the Administrator within 1 year:

(A) The collection and control system as described in the plan shall meet the design requirements of paragraph (b)(2)(ii) of this section.

(B) The collection and control system design plan shall include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions of §§60.753 through 60.758 proposed by the owner or operator.

(C) The collection and control system design plan shall either conform with specifications for active collection systems in §60.759 or include a demonstration to the Administrator's satisfaction of the sufficiency of the alternative provisions to §60.759.

(D) The Administrator shall review the information submitted under paragraphs (b)(2)(i) (A), (B) and (C) of this section and either approve it, disapprove it, or request that additional information be submitted. Because of the many site-specific factors involved with landfill gas system design, alternative systems may be necessary. A wide variety of system designs are possible, such as vertical wells, combination horizontal and vertical collection systems, or horizontal trenches only, leachate collection components, and passive systems.

The facility has submitted a collection and control system design plan prepared by a professional engineer to the Administrator on August 19, 2010.

(ii) Install a collection and control system that captures the gas generated within the landfill as required by paragraphs (b)(2)(ii)(A) or (B) and (b)(2)(iii) of this section within 30 months after the first annual report in which the emission rate equals or exceeds 50 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the emission rate is less than 50 megagrams per year, as specified in §60.757(c)(1) or (2).

The Milner Butte Landfill has installed a collection and control system as required by paragraphs (b)(2)(ii)(A) of this section within 30 months after the NMOC emission rate exceeded 50 megagrams per year.

(A) An active collection system shall:

(1) Be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control or treatment system equipment;

(2) Collect gas from each area, cell, or group of cells in the landfill in which the initial solid waste has been placed for a period of:

(i) 5 years or more if active; or

(ii) 2 years or more if closed or at final grade.

(3) Collect gas at a sufficient extraction rate;

(4) Be designed to minimize off-site migration of subsurface gas.

MBL has installed an active collection system.

(B) A passive collection system shall:

(1) Comply with the provisions specified in paragraphs (b)(2)(ii)(A)(1), (2), and (2)(ii)(A)(4) of this section.

(2) Be installed with liners on the bottom and all sides in all areas in which gas is to be collected. The liners shall be installed as required under §258.40.

(iii) Route all the collected gas to a control system that complies with the requirements in either paragraph (b)(2)(iii) (A), (B) or (C) of this section.

(A) An open flare designed and operated in accordance with §60.18 except as noted in §60.754(e);

(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 Milner Butte Landfill routes all collected gas to a control system that complies with (b)(2)(iii)(B). An initial performance test will be performed within 180 days from initial startup of the approved control system. The system is currently in an evaluation and optimization period.

(1) If a boiler or process heater is used as the control device, the landfill gas stream shall be introduced into the flame zone.

(2) 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;

The Milner Butte Landfill will operate the control device in accordance with the parameter ranges established during the initial or most recent performance test. An initial performance test will be performed within 180 days from initial startup of the approved control system. The system is currently in an evaluation and optimization period.

(C) Route the collected gas to a treatment system that processes the collected gas for subsequent sale or use. All emissions from any atmospheric vent from the gas treatment system shall be subject to the requirements of paragraph (b)(2)(iii) (A) or (B) of this section.

(iv) Operate the collection and control device installed to comply with this subpart in accordance with the provisions of §§60.753, 60.755 and 60.756.

The Milner Butte Landfill will operate the collection and control device to comply with this subpart in accordance with the provisions of Sec. 60.753, 60.755 and 60.756.

(v) The collection and control system may be capped or removed provided that all the conditions of paragraphs (b)(2)(v) (A), (B), and (C) of this section are met:

(A) The landfill shall be a closed landfill as defined in §60.751 of this subpart. A closure report shall be submitted to the Administrator as provided in §60.757(d);

(B) The collection and control system shall have been in operation a minimum of 15 years; and

(C) Following the procedures specified in §60.754(b) of this subpart, the calculated NMOC gas produced by the landfill shall be less than 50 megagrams per year on three successive test dates. The test dates shall be no less than 90 days apart, and no more than 180 days apart.

The Milner Butte Landfill acknowledges when the control system may be capped or removed and does not anticipate capping or removal of the collection and control system for many years.

(c) For purposes of obtaining an operating permit under title V of the Act, the owner or operator of a MSW landfill subject to this subpart with a design capacity less than 2.5 million megagrams or 2.5 million cubic meters is not subject to the requirement to obtain an operating permit for the landfill under part 70 or 71 of this chapter, unless the landfill is otherwise subject to either part 70 or 71. For purposes of submitting a timely application for an operating permit under part 70 or 71, the owner or operator of a MSW landfill subject to this subpart with a design capacity greater than or equal to 2.5 million megagrams and 2.5 million cubic meters, and not otherwise subject to either part 70 or 71, becomes subject to the requirements of §§70.5(a)(1)(i) or 71.5(a)(1)(i) of this chapter, regardless of when the design capacity report is actually submitted, no later than:

(1) June 10, 1996 for MSW landfills that commenced construction, modification, or reconstruction on or after May 30, 1991 but before March 12, 1996;

The facility was constructed in 1993, so this compliance date is applicable. The application was received on January 4, 2011.

(2) Ninety days after the date of commenced construction, modification, or reconstruction for MSW landfills that commence construction, modification, or reconstruction on or after March 12, 1996.

(d) When a MSW landfill subject to this subpart is closed, the owner or operator is no longer subject to the requirement to maintain an operating permit under part 70 or 71 of this chapter for the landfill if the landfill is not otherwise subject to the requirements of either part 70 or 71 and if either of the following conditions are met:

(1) The landfill was never subject to the requirement for a control system under paragraph (b)(2) of this section; or

(2) The owner or operator meets the conditions for control system removal specified in paragraph (b)(2)(v) of this section.

§ 60.753 Operational standards for collection and control systems.

Each owner or operator of an MSW landfill with a gas collection and control system used to comply with the provisions of §60.752(b)(2)(ii) of this subpart shall:

This applies to the MBL facility.

(a) Operate the collection system such that gas is collected from each area, cell, or group of cells in the 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 §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 §60.752(b)(2)(i) of this subpart.

(2) Unless an alternative test method is established as allowed by §60.752(b)(2)(i) of this subpart, 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 §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 §60.755(a)(3) through (5) or §60.755(c) of this subpart. If corrective actions are taken as specified in §60.755, the monitored exceedance is not a violation of the operational requirements in this section.

§ 60.754 Test methods and procedures.

(a)(1) The landfill owner or operator shall calculate the NMOC emission rate using either the equation provided in paragraph (a)(1)(i) of this section or the equation provided in paragraph (a)(1)(ii) of this section. Both equations may be used if the actual year-to-year solid waste acceptance rate is known, as specified in paragraph (a)(1)(i), for part of the life of the landfill and the actual year-to-year solid waste acceptance rate is unknown, as specified in paragraph (a)(1)(ii), for part of the life of the landfill. The values to be used in both equations are 0.05 per year for k , 170 cubic meters per megagram for L_o , and 4,000 parts per million by volume as hexane for the C_{NMOC} . For landfills located in geographical areas with a thirty year annual average precipitation of less than 25 inches, as measured at the nearest representative official meteorologic site, the k value to be used is 0.02 per year.

(i) The following equation shall be used if the actual year-to-year solid waste acceptance rate is known.

$$M_{NMOC} = \sum_{i=1}^n 2 k L_o M_i (e^{-kt_i}) (C_{NMOC}) (3.6 \times 10^{-9})$$

where,

M_{NMOC} = Total NMOC emission rate from the landfill, 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 solid waste in the i^{th} section, megagrams

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

C_{NMOC} = concentration of NMOC, parts per million by volume as hexane

3.6×10^{-9} = conversion factor

The mass of nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating the value for M_i if documentation of the nature and amount of such wastes is maintained

(ii) The following equation shall be used if the actual year-to-year solid waste acceptance rate is unknown.

$$M_{NMOC} = 2L_oR (e^{-kc} - e^{-kt}) C_{NMOC}(3.6 \times 10^{-9})$$

Where:

M_{NMOC} = mass emission rate of NMOC, megagrams per year

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

R = average annual acceptance rate, megagrams per year

k = methane generation rate constant, year⁻¹

t = age of landfill, years

C_{NMOC} = concentration of NMOC, parts per million by volume as hexane

c = time since closure, years; for active landfill $c=0$ and $e^{-kc}1$

3.6×10^{-9} = conversion factor

The mass of nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating the value of R , if documentation of the nature and amount of such wastes is maintained.

(2) Tier 1. The owner or operator shall compare the calculated NMOC mass emission rate to the standard of 50 megagrams per year.

(i) If the NMOC emission rate calculated in paragraph (a)(1) of this section is less than 50 megagrams per year, then the landfill owner shall submit an emission rate report as provided in §60.757(b)(1), and shall recalculate the NMOC mass emission rate annually as required under §60.752(b)(1).

(ii) If the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, then the landfill owner shall either comply with §60.752(b)(2), or determine a site-specific NMOC concentration and recalculate the NMOC emission rate using the procedures provided in paragraph (a)(3) of this section.

(3) Tier 2. The landfill owner or operator shall determine the NMOC concentration using the following sampling procedure. The landfill owner or operator shall install at least two sample probes per hectare of landfill surface that has retained waste for at least 2 years. If the landfill is larger than 25 hectares in area, only 50 samples are required. The sample probes should be located to avoid known areas of nondegradable solid waste. The owner or operator shall collect and analyze one sample of landfill gas from each probe to determine the NMOC concentration using Method 25 or 25C of appendix A of this part. Method 18 of appendix A of this part may be used to analyze the samples collected by the Method 25 or 25C sampling procedure. Taking composite samples from different probes into a single cylinder is allowed; however, equal sample volumes must be taken from each probe. For each composite, the sampling rate, collection times, beginning and ending cylinder vacuums, or alternative volume measurements must be recorded to verify that composite volumes are equal. Composite sample volumes should not be less than one liter unless evidence can be provided to substantiate the accuracy of smaller volumes. Terminate compositing before the cylinder approaches ambient pressure where measurement accuracy diminishes. If using Method 18, the owner or operator must identify all compounds in the sample and, as a minimum, test for those compounds published in the most recent Compilation of Air Pollutant Emission Factors (AP-42), minus carbon monoxide, hydrogen sulfide, and mercury. As a minimum, the instrument must be calibrated for each of the compounds on the list. Convert the concentration of each Method 18 compound to C_{NMOC} as hexane by multiplying by the ratio of its carbon atoms divided by six. If more than the required number of samples are taken, all samples must be used in the analysis. The landfill owner or operator must divide the NMOC concentration from Method 25 or 25C of appendix A of this part by six to convert from C_{NMOC} as carbon to C_{NMOC} as hexane. If the landfill has an active or passive gas removal system in place, Method 25 or 25C samples may be collected from these systems instead of surface probes provided the removal system can be shown to provide sampling as representative as the two sampling probe per hectare requirement. For active collection systems, samples

may be collected from the common header pipe before the gas moving or condensate removal equipment. For these systems, a minimum of three samples must be collected from the header pipe.

(i) The landfill owner or operator shall recalculate the NMOC mass emission rate using the equations provided in paragraph (a)(1)(i) or (a)(1)(ii) of this section and using the average NMOC concentration from the collected samples instead of the default value in the equation provided in paragraph (a)(1) of this section.

(ii) If the resulting mass emission rate calculated using the site-specific NMOC concentration is equal to or greater than 50 megagrams per year, then the landfill owner or operator shall either comply with §60.752(b)(2), or determine the site-specific methane generation rate constant and recalculate the NMOC emission rate using the site-specific methane generation rate using the procedure specified in paragraph (a)(4) of this section.

(iii) If the resulting NMOC mass emission rate is less than 50 megagrams per year, the owner or operator shall submit a periodic estimate of the emission rate report as provided in §60.757(b)(1) and retest the site-specific NMOC concentration every 5 years using the methods specified in this section.

(4) Tier 3. The site-specific methane generation rate constant shall be determined using the procedures provided in Method 2E of appendix A of this part. The landfill owner or operator shall estimate the NMOC mass emission rate using equations in paragraph (a)(1)(i) or (a)(1)(ii) of this section and using a site-specific methane generation rate constant k , and the site-specific NMOC concentration as determined in paragraph (a)(3) of this section instead of the default values provided in paragraph (a)(1) of this section. The landfill owner or operator shall compare the resulting NMOC mass emission rate to the standard of 50 megagrams per year.

(i) If the NMOC mass emission rate as calculated using the site-specific methane generation rate and concentration of NMOC is equal to or greater than 50 megagrams per year, the owner or operator shall comply with §60.752(b)(2).

(ii) If the NMOC mass emission rate is less than 50 megagrams per year, then the owner or operator shall submit a periodic emission rate report as provided in §60.757(b)(1) and shall recalculate the NMOC mass emission rate annually, as provided in §60.757(b)(1) using the equations in paragraph (a)(1) of this section and using the site-specific methane generation rate constant and NMOC concentration obtained in paragraph (a)(3) of this section. The calculation of the methane generation rate constant is performed only once, and the value obtained from this test shall be used in all subsequent annual NMOC emission rate calculations.

(5) The owner or operator may use other methods to determine the NMOC concentration or a site-specific k as an alternative to the methods required in paragraphs (a)(3) and (a)(4) of this section if the method has been approved by the Administrator.

The Milner Butte Landfill has already exceeded the NMOC emission rate of 50 megagrams per year and installed an active collection and control system. Thus the above test methods and procedures are not applicable at this time.

(b) After the installation of a collection and control system in compliance with §60.755, the owner or operator shall calculate the NMOC emission rate for purposes of determining when the system can be removed as provided in §60.752(b)(2)(v), using the following equation:

$$M_{\text{NMOC}} = 1.89 \times 10^{-3} Q_{\text{LFG}} C_{\text{NMOC}}$$

where,

M_{NMOC} = mass emission rate of NMOC, megagrams per year

Q_{LFG} = flow rate of landfill gas, cubic meters per minute

C_{NMOC} = NMOC concentration, parts per million by volume as hexane

(1) The flow rate of landfill gas, *QLFG*, shall be determined by measuring the total landfill gas flow rate at the common header pipe that leads to the control device using a gas flow measuring device calibrated according to the provisions of section 4 of Method 2E of appendix A of this part.

(2) The average NMOC concentration, C_{NMOC} , shall be determined by collecting and analyzing landfill gas sampled from the common header pipe before the gas moving or condensate removal equipment using the procedures in Method 25C or Method 18 of appendix A of this part. If using Method 18 of appendix A of this part, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). The sample location on the common header pipe shall be before any condensate removal or other gas refining units. The landfill owner or operator shall divide the NMOC concentration from Method 25C of appendix A of this part by six to convert from C_{NMOC} as carbon to C_{NMOC} as hexane.

(3) The owner or operator may use another method to determine landfill gas flow rate and NMOC concentration if the method has been approved by the Administrator.

This procedure must be used to determine when the collection and control equipment may be removed.

(c) When calculating emissions for PSD purposes, the owner or operator of each MSW landfill subject to the provisions of this subpart shall estimate the NMOC emission rate for comparison to the PSD major source and significance levels in §§51.166 or 52.21 of this chapter using AP-42 or other approved measurement procedures.

These are instructions for calculating emissions for PSD purposes.

(d) For the performance test required in §60.752(b)(2)(iii)(B), Method 25, 25C, or Method 18 of appendix A of this part must be used to determine compliance with the 98 weight-percent efficiency or the 20 ppmv outlet concentration level, unless another method to demonstrate compliance has been approved by the Administrator as provided by §60.752(b)(2)(i)(B). Method 3 or 3A shall be used to determine oxygen for correcting the NMOC concentration as hexane to 3 percent. In cases where the outlet concentration is less than 50 ppm NMOC as carbon (8 ppm NMOC as hexane), Method 25A should be used in place of Method 25. If using Method 18 of appendix A of this part, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). The following equation shall be used to calculate efficiency:

$$\text{Control Efficiency} = (NMOC_{in} - NMOC_{out}) / (NMOC_{in})$$

where,

$NMOC_{in}$ = mass of NMOC entering control device

$NMOC_{out}$ = mass of NMOC exiting control device

(e) For the performance test required in §60.752(b)(2)(iii)(A), the net heating value of the combusted landfill gas as determined in §60.18(f)(3) is calculated from the concentration of methane in the landfill gas as measured by Method 3C. A minimum of three 30-minute Method 3C samples are determined. The measurement of other organic components, hydrogen, and carbon monoxide is not applicable. Method 3C may be used to determine the landfill gas molecular weight for calculating the flare gas exit velocity under §60.18(f)(4).

Part (d) is for passive systems, and MBL has an active system.

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§ 60.755 Compliance provisions.

(a) Except as provided in §60.752(b)(2)(i)(B), the specified methods in paragraphs (a)(1) through (a)(6) of this section shall be used to determine whether the gas collection system is in compliance with §60.752(b)(2)(ii).

(1) For the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine compliance with §60.752(b)(2)(ii)(A)(1), one of the following equations shall be used. The k

and L_o kinetic factors should be those published in the most recent *Compilation of Air Pollutant Emission Factors (AP-42)* or other site specific values demonstrated to be appropriate and approved by the Administrator. If k has been determined as specified in §60.754(a)(4), the value of k determined from the test shall be used. A value of no more than 15 years shall be used for the intended use period of the gas mover equipment. The active life of the landfill is the age of the landfill plus the estimated number of years until closure.

(i) For sites with unknown year-to-year solid waste acceptance rate:

$$Q_m = 2L_oR (e^{-kc} - e^{-kt})$$

where,

Q_m = maximum expected gas generation flow rate, cubic meters per year

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

R = average annual acceptance rate, megagrams per year

k = methane generation rate constant, year⁻¹

t = age of the landfill at equipment installation plus the time the owner or operator intends to use the gas mover equipment or active life of the landfill, whichever is less. If the equipment is installed after closure, t is the age of the landfill at installation, years

c = time since closure, years (for an active landfill $c = 0$ and $e^{-kc} = 1$)

(ii) For sites with known year-to-year solid waste acceptance rate:

$$Q_m = 2L_oR (e^{-kc} - e^{-kt})$$

where,

Q_m = maximum expected gas generation flow rate, cubic meters per year

k = methane generation rate constant, year⁻¹

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

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

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

(iii) If a collection and control system has been installed, actual flow data may be used to project the maximum expected gas generation flow rate instead of, or in conjunction with, the equations in paragraphs (a)(1) (i) and (ii) of this section. If the landfill is still accepting waste, the actual measured flow data will not equal the maximum expected gas generation rate, so calculations using the equations in paragraphs (a)(1) (i) or (ii) or other methods shall be used to predict the maximum expected gas generation rate over the intended period of use of the gas control system equipment.

These are instructions on determining the maximum expected gas generation flow rate for design purposes when designing the collection and control system. This was required to be done prior to installation. Because the system has already been designed and installed, this does not need to be included as a permit condition. A review of the existing plans would include this information.

(2) For the purposes of determining sufficient density of gas collectors for compliance with §60.752(b)(2)(ii)(A)(2), the owner or operator shall design a system of vertical wells, horizontal collectors, or other collection devices, satisfactory to the Administrator, capable of controlling and extracting gas from all portions of the landfill sufficient to meet all operational and performance standards.

See explanation for (1). This is similar.

(3) For the purpose of demonstrating whether the gas collection system flow rate is sufficient to determine compliance with §60.752(b)(2)(ii)(A)(3), the owner or operator 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 §60.753(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.

A permit condition was written to incorporate this requirement. MBL has submitted an alternative timeline for correcting exceedances to the Administrator for approval. At this time, the approval has not yet been issued.

(4) Owners or operators are not required to expand the system as required in paragraph (a)(3) of this section during the first 180 days after gas collection system startup.

This gas collection system has been operating for more than 180 days, so this provision no longer applies.

(5) For the purpose of identifying whether excess air infiltration into the landfill is occurring, the owner or operator shall monitor each well monthly for temperature and nitrogen or oxygen as provided in §60.753(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.

Permit Condition 11 was written to incorporate this requirement. MBL has submitted an alternative timeline for correcting exceedances to the Administrator for approval. At this time, the approval has not yet been issued.

(6) An owner or operator seeking to demonstrate compliance with §60.752(b)(2)(ii)(A)(4) through the use of a collection system not conforming to the specifications provided in §60.759 shall provide information satisfactory to the Administrator as specified in §60.752(b)(2)(i)(C) demonstrating that off-site migration is being controlled.

MBL has installed a collection system conforming to the specifications provided in Sec. 60.759.

(b) For purposes of compliance with §60.753(a), each owner or operator of a controlled landfill shall place each well or design component as specified in the approved design plan as provided in §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.*

It appears in the permit application that the wells have not yet been installed, so this is written as Permit Condition 12.

(c) The following procedures shall be used for compliance with the surface methane operational standard as provided in §60.753(d).

(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 paragraph (d) of this section.

(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 paragraphs (c)(4) (i) through (v) of this section shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of §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 paragraph (c)(4)(v) of this section shall be taken, and no further monitoring of that location is required until the action specified in paragraph (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 paragraph (c)(4) (ii) or (iii) of this section 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 paragraph (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.*

(d) *Each owner or operator seeking to comply with the provisions in paragraph (c) of this section 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 appendix A of this part, 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 of this part, the instrument evaluation procedures of section 4.4 of Method 21 of appendix A of this part shall be used.*

(4) *The calibration procedures provided in section 4.2 of Method 21 of appendix A of this part shall be followed immediately before commencing a surface monitoring survey.*

(e) *The provisions of this subpart 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.*

40 CFR 60.755 (c) and (d) apply and were incorporated into the permit.

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§ 60.756 *Monitoring of operations.*

Except as provided in §60.752(b)(2)(i)(B),

(a) Each owner or operator seeking to comply with §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 §60.755(a)(3); and

(2) Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as provided in §60.755(a)(5); and

(3) Monitor temperature of the landfill gas on a monthly basis as provided in §60.755(a)(5).

(b) Each owner or operator seeking to comply with §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.

This section applies. The Milner Butte Landfill is using an enclosed combustor and will calibrate, maintain and operate a flow monitoring device equipped with a continuous recorder (at least every 15 minutes) according to the manufacturer's specifications, but has not triggered this requirement as the system is currently in an evaluation and optimization period and has not gone through initial startup. There are no bypass lines installed on the collection and control system.

(c) Each owner or operator seeking to comply with §60.752(b)(2)(iii) using an open flare shall install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment:

(1) A heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame.

(2) A device that records flow to or bypass of the flare. 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.

The MBL does not use an open flare.

(d) Each owner or operator seeking to demonstrate compliance with §60.752(b)(2)(iii) using a device other than an open flare or an enclosed combustor shall provide information satisfactory to the Administrator as provided in §60.752(b)(2)(i)(B) describing the operation of the control device, the operating parameters that would indicate proper performance, and appropriate monitoring procedures.

The Administrator shall review the information and either approve it, or request that additional information be submitted. The Administrator may specify additional appropriate monitoring procedures.

The MBL is not using a different method.

(e) Each owner or operator seeking to install a collection system that does not meet the specifications in §60.759 or seeking to monitor alternative parameters to those required by §60.753 through §60.756 shall provide information satisfactory to the Administrator as provided in §60.752(b)(2)(i) (B) and (C) describing the design and operation of the collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Administrator may specify additional appropriate monitoring procedures.

The Milner Butte Landfill has installed a collection system meeting the specifications in Sec. 60.759. The Milner Butte Landfill has submitted alternative monitoring parameters to the Administrator for approval.

(f) Each owner or operator seeking to demonstrate compliance with §60.755(c), shall monitor surface concentrations of methane according to the instrument specifications and procedures provided in §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.

This applies and was incorporated into Permit Condition 17.

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§ 60.757 Reporting requirements.

Except as provided in §60.752(b)(2)(i)(B),

(a) Each owner or operator subject to the requirements of this subpart shall submit an initial design capacity report to the Administrator.

(1) The initial design capacity report shall fulfill the requirements of the notification of the date construction is commenced as required by §60.7(a)(1) and shall be submitted no later than:

(i) June 10, 1996, for landfills that commenced construction, modification, or reconstruction on or after May 30, 1991 but before March 12, 1996 or

(ii) Ninety days after the date of commenced construction, modification, or reconstruction for landfills that commence construction, modification, or reconstruction on or after March 12, 1996.

(2) The initial design capacity report shall contain the following information:

(i) A map or plot of the landfill, providing the size and location of the landfill, and identifying all areas where solid waste may be landfilled according to the permit issued by the State, local, or tribal agency responsible for regulating the landfill.

ii) The maximum design capacity of the landfill. Where the maximum design capacity is specified in the permit issued by the State, local, or tribal agency responsible for regulating the landfill, a copy of the permit specifying the maximum design capacity may be submitted as part of the report. If the maximum design capacity of the landfill is not specified in the permit, the maximum design capacity shall be calculated using good engineering practices. The calculations shall be provided, along with the relevant parameters as part of the report. The State, Tribal, local agency or Administrator may request other reasonable information as may be necessary to verify the maximum design capacity of the landfill.

The initial design capacity report should have been submitted already and is not included in this permit. The Milner Butte Landfill believes the May 1993 Design Report meets the requirements of an initial design capacity report. The Design Report has not been directly submitted to the Administrator by the Milner Butte Landfill and it is unclear if it has been indirectly submitted through IDEQ.

(3) An amended design capacity report shall be submitted to the Administrator providing notification of an increase in the design capacity of the landfill, within 90 days of an increase in the maximum design

capacity of the landfill to or above 2.5 million megagrams and 2.5 million cubic meters. This increase in design capacity may result from an increase in the permitted volume of the landfill or an increase in the density as documented in the annual recalculation required in §60.758(f).

The design capacity of the landfill is already over this level, so this is not applicable.

(b) Each owner or operator subject to the requirements of this subpart shall submit an NMOC emission rate report to the Administrator initially and annually thereafter, except as provided for in paragraphs (b)(1)(ii) or (b)(3) of this section. The Administrator may request such additional information as may be necessary to verify the reported NMOC emission rate.

(1) The NMOC emission rate report shall contain an annual or 5-year estimate of the NMOC emission rate calculated using the formula and procedures provided in §60.754(a) or (b), as applicable.

(i) The initial NMOC emission rate report may be combined with the initial design capacity report required in paragraph (a) of this section and shall be submitted no later than indicated in paragraphs (b)(1)(i)(A) and (B) of this section. Subsequent NMOC emission rate reports shall be submitted annually thereafter, except as provided for in paragraphs (b)(1)(ii) and (b)(3) of this section.

(A) June 10, 1996, for landfills that commenced construction, modification, or reconstruction on or after May 30, 1991, but before March 12, 1996, or

(B) Ninety days after the date of commenced construction, modification, or reconstruction for landfills that commence construction, modification, or reconstruction on or after March 12, 1996.

(ii) If the estimated NMOC emission rate as reported in the annual report to the Administrator is less than 50 megagrams per year in each of the next 5 consecutive years, the owner or operator may elect to submit an estimate of the NMOC emission rate for the next 5-year period in lieu of the annual report. This estimate shall include the current amount of solid waste-in-place and the estimated waste acceptance rate for each year of the 5 years for which an NMOC emission rate is estimated. All data and calculations upon which this estimate is based shall be provided to the Administrator. This estimate shall be revised at least once every 5 years. If the actual waste acceptance rate exceeds the estimated waste acceptance rate in any year reported in the 5-year estimate, a revised 5-year estimate shall be submitted to the Administrator. The revised estimate shall cover the 5-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate.

(2) The NMOC emission rate report shall include all the data, calculations, sample reports and measurements used to estimate the annual or 5-year emissions.

The Tier 1 emission rate calculation was prepared by others and was anticipated to exceed the non-methane organic compound (NMOC) emission rate threshold of 50 Megagrams (approximately 55 tons) per year. The Tier 1 emission rate calculation was based on the United States Environmental Protection Agency (U.S. EPA) default values for LFG generation and NMOC concentration. These default values are not site-specific, and Tier 1 emissions estimates are believed by the landfill industry to be significantly overestimated.

A NSPS Tier 2 testing program allows the determination of a site-specific NMOC concentration through sampling and analysis of LFG). The site-specific value can then be used in the U.S. EPA's emission rate calculation in lieu of the Tier 1 default value, and a new NMOC emission rate can be calculated.

A Tier 2 testing program was completed for the site on September 8, 1998. NMOC concentrations derived from Tier 2 testing are valid for a period of 5 years. A second Tier 2 testing program was completed at the site in August 2003 for the purposes of determining a site-specific NMOC concentration and a third Tier 2 testing program was completed at the site in August 2008 for the purposes of determining a site-specific NMOC concentration.

(3) Each owner or operator subject to the requirements of this subpart is exempted from the requirements of paragraphs (b)(1) and (2) of this section, after the installation of a collection and control system in compliance with §60.752(b)(2), during such time as the collection and control system is in operation and in compliance with §§60.753 and 60.755.

The Milner Butte Landfill has installed a collection and control system designed to be in compliance with Sec. 60.752(b)(2). Based on that information, the facility is exempt from this section.

(c) Each owner or operator subject to the provisions of §60.752(b)(2)(i) shall submit a collection and control system design plan to the Administrator within 1 year of the first report required under paragraph (b) of this section in which the emission rate equals or exceeds 50 megagrams per year, except as follows:

(1) If the owner or operator elects to recalculate the NMOC emission rate after Tier 2 NMOC sampling and analysis as provided in §60.754(a)(3) and the resulting rate is less than 50 megagrams per year, annual periodic reporting shall be resumed, using the Tier 2 determined site-specific NMOC concentration, until the calculated emission rate is equal to or greater than 50 megagrams per year or the landfill is closed. The revised NMOC emission rate report, with the recalculated emission rate based on NMOC sampling and analysis, shall be submitted within 180 days of the first calculated exceedance of 50 megagrams per year.

(2) If the owner or operator elects to recalculate the NMOC emission rate after determining a site-specific methane generation rate constant (k), as provided in Tier 3 in §60.754(a)(4), and the resulting NMOC emission rate is less than 50 Mg/yr, annual periodic reporting shall be resumed. The resulting site-specific methane generation rate constant (k) shall be used in the emission rate calculation until such time as the emissions rate calculation results in an exceedance. The revised NMOC emission rate report based on the provisions of §60.754(a)(4) and the resulting site-specific methane generation rate constant (k) shall be submitted to the Administrator within 1 year of the first calculated emission rate exceeding 50 megagrams per year.

The Milner Butte Landfill has submitted a collection and control system design plan to the Administrator within the timeframe described above.

(d) Each owner or operator of a controlled landfill shall submit a closure report to the Administrator within 30 days of waste acceptance cessation. The Administrator may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of 40 CFR 258.60. If a closure report has been submitted to the Administrator, no additional wastes may be placed into the landfill without filing a notification of modification as described under §60.7(a)(4).

The facility has not requested closure of the landfill.

(e) Each owner or operator of a controlled landfill shall submit an equipment removal report to the Administrator 30 days prior to removal or cessation of operation of the control equipment.

(1) The equipment removal report shall contain all of the following items:

(i) A copy of the closure report submitted in accordance with paragraph (d) of this section;

(ii) A copy of the initial performance test report demonstrating that the 15 year minimum control period has expired; and

(iii) Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 50 megagrams or greater of NMOC per year.

(2) The Administrator may request such additional information as may be necessary to verify that all of the conditions for removal in §60.752(b)(2)(v) have been met.

The facility has not proposed to remove equipment.

(f) Each owner or operator of a landfill seeking to comply with §60.752(b)(2) using an active collection system designed in accordance with §60.752(b)(2)(ii) shall submit to the Administrator annual reports of the recorded information in (f)(1) through (f)(6) of this paragraph. The initial annual report shall be submitted within 180 days of installation and start-up of the collection and control system, and shall include the initial performance test report required under §60.8. For enclosed combustion devices and flares, reportable exceedances are defined under §60.758(c).

- (1) Value and length of time for exceedance of applicable parameters monitored under §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 §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 §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 §60.755.*

This was included as a permit condition.

(g) Each owner or operator seeking to comply with §60.752(b)(2)(iii) shall include the following information with the initial performance test report required under §60.8:

- (1) A diagram of the collection system showing collection system positioning including all wells, horizontal collectors, surface collectors, or other gas extraction devices, including the locations of any areas excluded from collection and the proposed sites for the future collection system expansion;*
- (2) The data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and the gas mover equipment sizing are based;*
- (3) The documentation of the presence of asbestos or nondegradable material for each area from which collection wells have been excluded based on the presence of asbestos or nondegradable material;*
- (4) The sum of the gas generation flow rates for all areas from which collection wells have been excluded based on nonproductivity and the calculations of gas generation flow rate for each excluded area; and*
- (5) The provisions for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill; and*
- (6) The provisions for the control of off-site migration.*

The initial performance test should have already been done, and is a one-time requirement, so it is not included in this permit.

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§ 60.758 Recordkeeping requirements.

(a) Except as provided in §60.752(b)(2)(i)(B), each owner or operator of an MSW landfill subject to the provisions of §60.752(b) shall keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report which triggered §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.

This applies and Permit Condition 23 was written.

(b) Except as provided in §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 paragraphs (b)(1) through (b)(4) 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 this subpart seeks to demonstrate compliance with §60.752(b)(2)(ii):

(i) The maximum expected gas generation flow rate as calculated in §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 §60.759(a)(1).

(2) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §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 §60.752(b)(2)(iii)(B) achieved by the control device.

This applies and has been incorporated into the permit as Permit Condition 24.

(3) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §60.752(b)(2)(iii)(B)(1) through use of a boiler or process heater of any size: a description of the location at which the collected gas vent stream is introduced into the boiler or process heater over the same time period of the performance testing.

The MBL does not use a boiler or process heater.

(4) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §60.752(b)(2)(iii)(A) through use of an open flare, the flare type (i.e., steam-assisted, air-assisted, or nonassisted), all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in §60.18; continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame of the flare flame is absent.

The MBL does not use an open flare.

(c) Except as provided in §60.752(b)(2)(i)(B), each owner or operator of a controlled landfill subject to the provisions of this subpart shall keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in §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 §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 §60.752(b)(2)(iii) was determined.

This applies, so it is written into the permit as Permit Condition 24.

(ii) For boilers or process heaters, whenever there is a change in the location at which the vent stream is introduced into the flame zone as required under paragraph (b)(3) of this section.

The facility does not have a boiler or process heater.

(2) Each owner or operator subject to the provisions of this subpart 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 §60.756.

This applies and was written as Permit Condition 25.

(3) Each owner or operator subject to the provisions of this subpart who uses a boiler or process heater with a design heat input capacity of 44 megawatts or greater to comply with §60.752(b)(2)(iii) shall keep an up-to-date, readily accessible record of all periods of operation of the boiler or process heater. (Examples of such records could include records of steam use, fuel use, or monitoring data collected pursuant to other State, local, Tribal, or Federal regulatory requirements.)

The MBL does not use a boiler or process heater.

(4) Each owner or operator seeking to comply with the provisions of this subpart by use of an open flare shall keep up-to-date, readily accessible continuous records of the flame or flare pilot flame monitoring specified under §60.756(c), and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent.

The MBL does not use an open flare.

(d) Except as provided in §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 this subpart shall keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under §60.755(b).

(2) Each owner or operator subject to the provisions of this subpart 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 §60.759(a)(3)(i) as well as any nonproductive areas excluded from collection as provided in §60.759(a)(3)(ii).

(e) Except as provided in §60.752(b)(2)(i)(B), each owner or operator subject to the provisions of this subpart 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 §60.753, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance.

Sections (d) and (e) apply and are included as Permit Condition 26.

(f) Landfill owners or operators who convert design capacity from volume to mass or mass to volume to demonstrate that landfill design capacity is less than 2.5 million megagrams or 2.5 million cubic meters, as provided in the definition of "design capacity", shall keep readily accessible, on-site records of the annual recalculation of site-specific density, design capacity, and the supporting documentation. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.

The MBL is over this limit, so this section is not applicable.

§ 60.759 Specifications for active collection systems.

(a) Each owner or operator seeking to comply with §60.752(b)(2)(i) 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 §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 expandibility (sic), 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 §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.

The areas of asbestos or nondegradeable material will be excluded from collection through documentation required under Sec. 60.758(d).

(ii) 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

(iii) 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 §60.754(a)(1) or the alternative values from §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 paragraph (a)(3)(i) of this section.

This requirement applies and is included in the permit as Permit Condition 28.

(b) Each owner or operator seeking to comply with §60.752(b)(2)(i)(A) shall construct the gas collection devices using the following equipment or procedures:

(1) The landfill gas extraction components shall be constructed of polyvinyl chloride (PVC), high density polyethylene (HDPE) pipe, fiberglass, stainless steel, or other nonporous corrosion resistant material of suitable dimensions to: convey projected amounts of gases; withstand installation, static, and settlement forces; and withstand planned overburden or traffic loads. The collection system shall extend as necessary to comply with emission and migration standards. Collection devices such as wells and

horizontal collectors shall be perforated to allow gas entry without head loss sufficient to impair performance across the intended extent of control. Perforations shall be situated with regard to the need to prevent excessive air infiltration.

(2) Vertical wells shall be placed so as not to endanger underlying liners and shall address the occurrence of water within the landfill. Holes and trenches constructed for piped wells and horizontal collectors shall be of sufficient cross-section so as to allow for their proper construction and completion including, for example, centering of pipes and placement of gravel backfill. Collection devices shall be designed so as not to allow indirect short circuiting of air into the cover or refuse into the collection system or gas into the air. Any gravel used around pipe perforations should be of a dimension so as not to penetrate or block perforations.

(3) Collection devices may be connected to the collection header pipes below or above the landfill surface. The connector assembly shall include a positive closing throttle valve, any necessary seals and couplings, access couplings and at least one sampling port. The collection devices shall be constructed of PVC, HDPE, fiberglass, stainless steel, or other nonporous material of suitable thickness.

(c) Each owner or operator seeking to comply with §60.752(b)(2)(i)(A) shall convey the landfill gas to a control system in compliance with §60.752(b)(2)(iii) through the collection header pipe(s). The gas mover equipment shall be sized to handle the maximum gas generation flow rate expected over the intended use period of the gas moving equipment using the following procedures:

(1) For existing collection systems, the flow data shall be used to project the maximum flow rate. If no flow data exists, the procedures in paragraph (c)(2) of this section shall be used.

(2) For new collection systems, the maximum flow rate shall be in accordance with §60.755(a)(1).

These are instructions on setting up the collection and control system. The system has been set up already. A review of the set-up should be done outside of the permit. The permit deals mainly with ongoing requirements.

7.5 NESHAP Applicability (40 CFR 61)

The facility has proposed to operate as a major source subject to the requirements of 40 CFR 61, National Emission Standards for Asbestos. Although this section is applicable to the landfill, there are no asbestos emissions that go to the flare, so this section is in the Title V permit but not in the flare PTC.

40 CFR 61, Subpart M

National Emission Standards for Asbestos

§ 61.140 Applicability.

The provisions of this subpart are applicable to those sources specified in §§61.142 through 61.151, 61.154, and 61.155.

The Milner Butte Landfill is an active waste disposal site and is subject to Section 61.154.

§ 61.141 Definitions.

All terms that are used in this subpart and are not defined below are given the same meaning as in the Act and in subpart A of this part.

Active waste disposal site means any disposal site other than an inactive site.

Adequately wet means sufficiently mix or penetrate with liquid to prevent the release of particulates. If visible emissions are observed coming from asbestos-containing material, then that material has not been adequately wetted. However, the absence of visible emissions is not sufficient evidence of being adequately wet.

Asbestos means the asbestiform varieties of serpentinite (chrysotile), riebeckite (crocidolite), cummingtonite-grunerite, anthophyllite, and actinolite-tremolite.

Asbestos-containing waste materials means mill tailings or any waste that contains commercial asbestos and is generated by a source subject to the provisions of this subpart. This term includes filters from

control devices, friable asbestos waste material, and bags or other similar packaging contaminated with commercial asbestos. As applied to demolition and renovation operations, this term also includes regulated asbestos-containing material waste and materials contaminated with asbestos including disposable equipment and clothing.

Asbestos mill means any facility engaged in converting, or in any intermediate step in converting, asbestos ore into commercial asbestos. Outside storage of asbestos material is not considered a part of the asbestos mill.

Asbestos tailings means any solid waste that contains asbestos and is a product of asbestos mining or milling operations.

Asbestos waste from control devices means any waste material that contains asbestos and is collected by a pollution control device.

Category I nonfriable asbestos-containing material (ACM) means asbestos-containing packings, gaskets, resilient floor covering, and asphalt roofing products containing more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763, section 1, Polarized Light Microscopy.

Category II nonfriable ACM means any material, excluding Category I nonfriable ACM, containing more than 1 percent asbestos as determined using the methods specified in appendix E, subpart E, 40 CFR part 763, section 1, Polarized Light Microscopy that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

Commercial asbestos means any material containing asbestos that is extracted from ore and has value because of its asbestos content.

Cutting means to penetrate with a sharp-edged instrument and includes sawing, but does not include shearing, slicing, or punching.

Demolition means the wrecking or taking out of any load-supporting structural member of a facility together with any related handling operations or the intentional burning of any facility.

Emergency renovation operation means a renovation operation that was not planned but results from a sudden, unexpected event that, if not immediately attended to, presents a safety or public health hazard, is necessary to protect equipment from damage, or is necessary to avoid imposing an unreasonable financial burden. This term includes operations necessitated by nonroutine failures of equipment.

Fabricating means any processing (e.g., cutting, sawing, drilling) of a manufactured product that contains commercial asbestos, with the exception of processing at temporary sites (field fabricating) for the construction or restoration of facilities. In the case of friction products, fabricating includes bonding, debonding, grinding, sawing, drilling, or other similar operations performed as part of fabricating.

Facility means any institutional, commercial, public, industrial, or residential structure, installation, or building (including any structure, installation, or building containing condominiums or individual dwelling units operated as a residential cooperative, but excluding residential buildings having four or fewer dwelling units); any ship; and any active or inactive waste disposal site. For purposes of this definition, any building, structure, or installation that contains a loft used as a dwelling is not considered a residential structure, installation, or building. Any structure, installation or building that was previously subject to this subpart is not excluded, regardless of its current use or function.

Facility component means any part of a facility including equipment.

Friable asbestos material means any material containing more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763, section 1, Polarized Light Microscopy, that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. If the asbestos content is less than 10 percent as determined by a method other than point counting by polarized light microscopy (PLM), verify the asbestos content by point counting using PLM.

Fugitive source means any source of emissions not controlled by an air pollution control device.

Glove bag means a sealed compartment with attached inner gloves used for the handling of asbestos-containing materials. Properly installed and used, glove bags provide a small work area enclosure typically used for small-scale asbestos stripping operations. Information on glove-bag installation, equipment and supplies, and work practices is contained in the Occupational Safety and Health Administration's (OSHA's) final rule on occupational exposure to asbestos (appendix G to 29 CFR 1926.58).

Grinding means to reduce to powder or small fragments and includes mechanical chipping or drilling.

In poor condition means the binding of the material is losing its integrity as indicated by peeling, cracking, or crumbling of the material.

Inactive waste disposal site means any disposal site or portion of it where additional asbestos-containing waste material has not been deposited within the past year.

Installation means any building or structure or any group of buildings or structures at a single demolition or renovation site that are under the control of the same owner or operator (or owner or operator under common control).

Leak-tight means that solids or liquids cannot escape or spill out. It also means dust-tight.

Malfunction means any sudden and unavoidable failure of air pollution control equipment or process equipment or of a process to operate in a normal or usual manner so that emissions of asbestos are increased. Failures of equipment shall not be considered malfunctions if they are caused in any way by poor maintenance, careless operation, or any other preventable upset conditions, equipment breakdown, or process failure.

Manufacturing means the combining of commercial asbestos—or, in the case of woven friction products, the combining of textiles containing commercial asbestos—with any other material(s), including commercial asbestos, and the processing of this combination into a product. Chlorine production is considered a part of manufacturing.

Natural barrier means a natural object that effectively precludes or deters access. Natural barriers include physical obstacles such as cliffs, lakes or other large bodies of water, deep and wide ravines, and mountains. Remoteness by itself is not a natural barrier.

Nonfriable asbestos-containing material means any material containing more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763, section 1, Polarized Light Microscopy, that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

Nonscheduled renovation operation means a renovation operation necessitated by the routine failure of equipment, which is expected to occur within a given period based on past operating experience, but for which an exact date cannot be predicted.

Outside air means the air outside buildings and structures, including, but not limited to, the air under a bridge or in an open air ferry dock.

Owner or operator of a demolition or renovation activity means any person who owns, leases, operates, controls, or supervises the facility being demolished or renovated or any person who owns, leases, operates, controls, or supervises the demolition or renovation operation, or both.

Particulate asbestos material means finely divided particles of asbestos or material containing asbestos.

Planned renovation operations means a renovation operation, or a number of such operations, in which some RACM will be removed or stripped within a given period of time and that can be predicted.

Individual nonscheduled operations are included if a number of such operations can be predicted to occur during a given period of time based on operating experience.

Regulated asbestos-containing material (RACM) means (a) Friable asbestos material, (b) Category I nonfriable ACM that has become friable, (c) Category I nonfriable ACM that will be or has been

subjected to sanding, grinding, cutting, or abrading, or (d) Category II nonfriable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations regulated by this subpart.

Remove means to take out RACM or facility components that contain or are covered with RACM from any facility.

Renovation means altering a facility or one or more facility components in any way, including the stripping or removal of RACM from a facility component. Operations in which load-supporting structural members are wrecked or taken out are demolitions.

Resilient floor covering means asbestos-containing floor tile, including asphalt and vinyl floor tile, and sheet vinyl floor covering containing more than 1 percent asbestos as determined using polarized light microscopy according to the method specified in appendix E, subpart E, 40 CFR part 763, section 1, Polarized Light Microscopy.

Roadways means surfaces on which vehicles travel. This term includes public and private highways, roads, streets, parking areas, and driveways.

Strip means to take off RACM from any part of a facility or facility components.

Structural member means any load-supporting member of a facility, such as beams and load supporting walls; or any nonload-supporting member, such as ceilings and nonload-supporting walls.

Visible emissions means any emissions, which are visually detectable without the aid of instruments, coming from RACM or asbestos-containing waste material, or from any asbestos milling, manufacturing, or fabricating operation. This does not include condensed, uncombined water vapor.

Waste generator means any owner or operator of a source covered by this subpart whose act or process produces asbestos-containing waste material.

Waste shipment record means the shipping document, required to be originated and signed by the waste generator, used to track and substantiate the disposition of asbestos-containing waste material.

Working day means Monday through Friday and includes holidays that fall on any of the days Monday through Friday.

§ 61.142 Standard for asbestos mills.

(a) Each owner or operator of an asbestos mill shall either discharge no visible emissions to the outside air from that asbestos mill, including fugitive sources, or use the methods specified by §61.152 to clean emissions containing particulate asbestos material before they escape to, or are vented to, the outside air.

MBL is not an asbestos mill.

§ 61.143 Standard for roadways.

No person may construct or maintain a roadway with asbestos tailings or asbestos-containing waste material on that roadway, unless, for asbestos tailings.

MBL does not have any asbestos roadways.

§ 61.144 Standard for manufacturing.

(a) Applicability. This section applies to the following manufacturing operations using commercial asbestos.

MBL is not a manufacturing facility.

§ 61.145 Standard for demolition and renovation.

(a) Applicability. To determine which requirements of paragraphs (a), (b), and (c) of this section apply to the owner or operator of a demolition or renovation activity and prior to the commencement of the demolition or renovation, thoroughly inspect the affected facility or part of the facility where the

demolition or renovation operation will occur for the presence of asbestos, including Category I and Category II nonfriable ACM. The requirements of paragraphs (b) and (c) of this section apply to each owner or operator of a demolition or renovation activity, including the removal of RACM as follows:

MBL is not an owner or operator of a demolition or renovation activity.

§ 61.146 Standard for spraying.

The owner or operator of an operation in which asbestos-containing materials are spray applied shall comply with the following requirements:

MBL is not an owner or operator of an operation in which asbestos-containing materials are spray applied.

§ 61.147 Standard for fabricating.

MBL does not do any fabrication using commercial asbestos.

§ 61.148 Standard for insulating materials.

No owner or operator of a facility may install or reinstall on a facility component any insulating materials that contain commercial asbestos if the materials are either molded and friable or wet-applied and friable after drying. The provisions of this section do not apply to spray-applied insulating materials regulated under §61.146.

MBL does not do any demolition or renovation.

§ 61.149 Standard for waste disposal for asbestos mills.

MBL is not an asbestos mill.

§ 61.150 Standard for waste disposal for manufacturing, fabricating, demolition, renovation, and spraying operations.

MBL does not manufacture, fabricate, demolish, renovate, or spray asbestos-containing materials.

§ 61.151 Standard for inactive waste disposal sites for asbestos mills and manufacturing and fabricating operations.

Each owner or operator of any inactive waste disposal site that was operated by sources covered under §61.142, 61.144, or 61.147 and received deposits of asbestos-containing waste material generated by the sources, shall:

(a) Comply with one of the following:

(1) Either discharge no visible emissions to the outside air from an inactive waste disposal site subject to this paragraph; or

(2) Cover the asbestos-containing waste material with at least 15 centimeters (6 inches) of compacted nonasbestos-containing material, and grow and maintain a cover of vegetation on the area adequate to prevent exposure of the asbestos-containing waste material. In desert areas where vegetation would be difficult to maintain, at least 8 additional centimeters (3 inches) of well-graded, nonasbestos crushed rock may be placed on top of the final cover instead of vegetation and maintained to prevent emissions; or

(3) Cover the asbestos-containing waste material with at least 60 centimeters (2 feet) of compacted nonasbestos-containing material, and maintain it to prevent exposure of the asbestos-containing waste; or

(4) For inactive waste disposal sites for asbestos tailings, a resinous or petroleum-based dust suppression agent that effectively binds dust to control surface air emissions may be used instead of the methods in paragraphs (a) (1), (2), and (3) of this section. Use the agent in the manner and frequency recommended for the particular asbestos tailings by the manufacturer of the dust suppression agent to achieve and maintain dust control. Obtain prior written approval of the Administrator to use other equally effective

dust suppression agents. For purposes of this paragraph, any used, spent, or other waste oil is not considered a dust suppression agent.

(b) Unless a natural barrier adequately deters access by the general public, install and maintain warning signs and fencing as follows, or comply with paragraph (a)(2) or (a)(3) of this section.

(1) Display warning signs at all entrances and at intervals of 100 m (328 ft) or less along the property line of the site or along the perimeter of the sections of the site where asbestos-containing waste material was deposited. The warning signs must:

(i) Be posted in such a manner and location that a person can easily read the legend; and

(ii) Conform to the requirements for 51 cm × 36 cm (20 inch × 14 inch) upright format signs specified in 29 CF 1910.145(d)(4) and this paragraph; and

(iii) Display the following legend in the lower panel with letter sizes and styles of a visibility at least equal to those specified in this paragraph.

Legend Notation

Asbestos Waste Disposal Site 2.5 cm (1 inch) Sans Serif, Gothic or Block

Do Not Create Dust 1.9 cm (3/4 inch) Sans Serif, Gothic or Block

Breathing Asbestos is Hazardous to Your Health 14 Point Gothic.

Spacing between any two lines must be at least equal to the height of the upper of the two lines.

(2) Fence the perimeter of the site in a manner adequate to deter access by the general public.

(3) When requesting a determination on whether a natural barrier adequately deters public access, supply information enabling the Administrator to determine whether a fence or a natural barrier adequately deters access by the general public.

(c) The owner or operator may use an alternative control method that has received prior approval of the Administrator rather than comply with the requirements of paragraph (a) or (b) of this section.

(d) Notify the Administrator in writing at least 45 days prior to excavating or otherwise disturbing any asbestos-containing waste material that has been deposited at a waste disposal site under this section, and follow the procedures specified in the notification. If the excavation will begin on a date other than the one contained in the original notice, notice of the new start date must be provided to the Administrator at least 10 working days before excavation begins and in no event shall excavation begin earlier than the date specified in the original notification. Include the following information in the notice:

(1) Scheduled starting and completion dates.

(2) Reason for disturbing the waste.

(3) Procedures to be used to control emissions during the excavation, storage, transport, and ultimate disposal of the excavated asbestos-containing waste material. If deemed necessary, the Administrator may require changes in the emission control procedures to be used.

(4) Location of any temporary storage site and the final disposal site.

(e) Within 60 days of a site becoming inactive and after the effective date of this subpart, record, in accordance with State law, a notation on the deed to the facility property and on any other instrument that would normally be examined during a title search; this notation will in perpetuity notify any potential purchaser of the property that:

(1) The land has been used for the disposal of asbestos-containing waste material;

(2) The survey plot and record of the location and quantity of asbestos-containing waste disposed of within the disposal site required in §61.154(f) have been filed with the Administrator; and

(3) The site is subject to 40 CFR part 61, subpart M.

§ 61.152 *Air-cleaning.*

MBL does not perform air cleaning.

§ 61.153 *Reporting.*

(a) Any new source to which this subpart applies (with the exception of sources subject to §§61.143, 61.145, 61.146, and 61.148), which has an initial startup date preceding the effective date of this revision, shall provide the following information to the Administrator postmarked or delivered within 90 days of the effective date. In the case of a new source that does not have an initial startup date preceding the effective date, the information shall be provided, postmarked or delivered, within 90 days of the initial startup date. Any owner or operator of an existing source shall provide the following information to the Administrator within 90 days of the effective date of this subpart unless the owner or operator of the existing source has previously provided this information to the Administrator. Any changes in the information provided by any existing source shall be provided to the Administrator, postmarked or delivered, within 30 days after the change.

This information has already been provided to the Administrator.

(1) A description of the emission control equipment used for each process; and

(i) If the fabric device uses a woven fabric, the airflow permeability in $m^3 / \text{min}/m^2$ and; if the fabric is synthetic, whether the fill yarn is spun or not spun; and

(ii) If the fabric filter device uses a felted fabric, the density in g/m^2 , the minimum thickness in inches, and the airflow permeability in $m^3 / \text{min}/m^2$.

(2) If a fabric filter device is used to control emissions,

(i) The airflow permeability in $m^3 / \text{min}/m^2$ ($ft^3 / \text{min}/ft^2$) if the fabric filter device uses a woven fabric, and, if the fabric is synthetic, whether the fill yarn is spun or not spun; and

(ii) If the fabric filter device uses a felted fabric, the density in g/m^2 (oz/yd^2), the minimum thickness in millimeters (inches), and the airflow permeability in $m^3 / \text{min}/m^2$ ($ft^3 / \text{min}/ft^2$).

(3) If a HEPA filter is used to control emissions, the certified efficiency.

(4) For sources subject to §§61.149 and 61.150:

(i) A brief description of each process that generates asbestos-containing waste material; and

(ii) The average volume of asbestos-containing waste material disposed of, measured in m^3 / day (yd^3 / day); and

(iii) The emission control methods used in all stages of waste disposal; and

(iv) The type of disposal site or incineration site used for ultimate disposal, the name of the site operator, and the name and location of the disposal site.

The Milner Butte Landfill does not perform air cleaning or generate asbestos-containing waste materials.

(5) For sources subject to §§61.151 and 61.154:

(i) A brief description of the site; and

(ii) The method or methods used to comply with the standard, or alternative procedures to be used.

(b) The information required by paragraph (a) of this section must accompany the information required by §61.10. Active waste disposal sites subject to §61.154 shall also comply with this provision. Roadways, demolition and renovation, spraying, and insulating materials are exempted from the requirements of §61.10(a). The information described in this section must be reported using the format of appendix A of this part as a guide.

(Sec. 114. Clean Air Act as amended (42 U.S.C. 7414))

This section applies, and the information has already been provided to the Administrator.

§ 61.154 *Standard for active waste disposal sites.*

Each owner or operator of an active waste disposal site that receives asbestos-containing waste material from a source covered under §61.149, 61.150, or 61.155 shall meet the requirements of this section:

(a) Either there must be no visible emissions to the outside air from any active waste disposal site where asbestos-containing waste material has been deposited, or the requirements of paragraph (c) or (d) of this section must be met.

The Milner Butte Landfill is an active waste disposal site that receives asbestos containing waste materials. The Milner Butte Landfill will follow the requirements of paragraph (c) of this section.

(b) Unless a natural barrier adequately deters access by the general public, either warning signs and fencing must be installed and maintained as follows, or the requirements of paragraph (c)(1) of this section must be met.

(1) Warning signs must be displayed at all entrances and at intervals of 100 m (330 ft) or less along the property line of the site or along the perimeter of the sections of the site where asbestos-containing waste material is deposited. The warning signs must:

(i) Be posted in such a manner and location that a person can easily read the legend; and

(ii) Conform to the requirements of 51 cm × 36 cm (20&inch; × 14&inch;) upright format signs specified in 29 CFR 1910.145(d)(4) and this paragraph; and

(iii) Display the following legend in the lower panel with letter sizes and styles of a visibility at least equal to those specified in this paragraph.

Legend Notation

Asbestos Waste Disposal Site 2.5 cm (1 inch) Sans Serif, Gothic or Block.

Do Not Create Dust 1.9 cm (3/4 inch) Sans Serif, Gothic or Block.

Breathing Asbestos is Hazardous to Your Health 14 Point Gothic.

Spacing between any two lines must be at least equal to the height of the upper of the two lines.

(2) The perimeter of the disposal site must be fenced in a manner adequate to deter access by the general public.

(3) Upon request and supply of appropriate information, the Administrator will determine whether a fence or a natural barrier adequately deters access by the general public.

The Milner Butte Landfill has a perimeter fence around the disposal site to deter access by the general public and will follow the requirements of paragraph (c) of this section. A permit condition has been written to incorporate the provisions of this section.

(c) Rather than meet the no visible emission requirement of paragraph (a) of this section, at the end of each operating day, or at least once every 24-hour period while the site is in continuous operation, the asbestos-containing waste material that has been deposited at the site during the operating day or previous 24-hour period shall:

(1) Be covered with at least 15 centimeters (6 inches) of compacted nonasbestos-containing material, or

(2) Be covered with a resinous or petroleum-based dust suppression agent that effectively binds dust and controls wind erosion. Such an agent shall be used in the manner and frequency recommended for the particular dust by the dust suppression agent manufacturer to achieve and maintain dust control. Other equally effective dust suppression agents may be used upon prior approval by the Administrator. For purposes of this paragraph, any used, spent, or other waste oil is not considered a dust suppression agent.

The Milner Butte Landfill will follow the conditions of (c)(1) in lieu of meeting the no visible emissions requirement of paragraph (a). A permit condition has been written to incorporate the provisions of this section.

(d) Rather than meet the no visible emission requirement of paragraph (a) of this section, use an alternative emissions control method that has received prior written approval by the Administrator according to the procedures described in §61.149(c)(2).

(e) For all asbestos-containing waste material received, the owner or operator of the active waste disposal site shall:

(1) Maintain waste shipment records, using a form similar to that shown in Figure 4, and include the following information:

(i) The name, address, and telephone number of the waste generator.

(ii) The name, address, and telephone number of the transporter(s).

(iii) The quantity of the asbestos-containing waste material in cubic meters (cubic yards).

(iv) The presence of improperly enclosed or uncovered waste, or any asbestos-containing waste material not sealed in leak-tight containers. Report in writing to the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the waste generator (identified in the waste shipment record), and, if different, the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the disposal site, by the following working day, the presence of a significant amount of improperly enclosed or uncovered waste. Submit a copy of the waste shipment record along with the report.

(v) The date of the receipt.

(e) applies. A permit condition has been written to incorporate the provisions of this section.

(2) As soon as possible and no longer than 30 days after receipt of the waste, send a copy of the signed waste shipment record to the waste generator.

(2) applies. A permit condition has been written to incorporate the provisions of this section..

(3) Upon discovering a discrepancy between the quantity of waste designated on the waste shipment records and the quantity actually received, attempt to reconcile the discrepancy with the waste generator. If the discrepancy is not resolved within 15 days after receiving the waste, immediately report in writing to the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the waste generator (identified in the waste shipment record), and, if different, the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the disposal site. Describe the discrepancy and attempts to reconcile it, and submit a copy of the waste shipment record along with the report.

This applies. A permit condition has been written to incorporate the provisions of this section..

(4) Retain a copy of all records and reports required by this paragraph for at least 2 years.

This applies. A permit condition has been written to incorporate the provisions of this section..

(f) Maintain, until closure, records of the location, depth and area, and quantity in cubic meters (cubic yards) of asbestos-containing waste material within the disposal site on a map or diagram of the disposal area.

(g) Upon closure, comply with all the provisions of §61.151.

(h) Submit to the Administrator, upon closure of the facility, a copy of records of asbestos waste disposal locations and quantities.

(i) Furnish upon request, and make available during normal business hours for inspection by the Administrator, all records required under this section.

(j) Notify the Administrator in writing at least 45 days prior to excavating or otherwise disturbing any asbestos-containing waste material that has been deposited at a waste disposal site and is covered. If the excavation will begin on a date other than the one contained in the original notice, notice of the new start date must be provided to the Administrator at least 10 working days before excavation begins and in no event shall excavation begin earlier than the date specified in the original notification. Include the following information in the notice:

(1) Scheduled starting and completion dates.

(2) Reason for disturbing the waste.

(3) Procedures to be used to control emissions during the excavation, storage, transport, and ultimate disposal of the excavated asbestos-containing waste material. If deemed necessary, the Administrator may require changes in the emission control procedures to be used.

(4) Location of any temporary storage site and the final disposal site.

All of the above applies. A permit condition has been written to incorporate the provisions of this section..

§ 61.155 Standard for operations that convert asbestos-containing waste material into nonasbestos (asbestos-free) material.

Each owner or operator of an operation that converts RACM and asbestos-containing waste material into nonasbestos (asbestos-free) material shall:

MBL does not convert RACM and asbestos-containing waste material into non-asbestos material.

§ 61.156 Cross-reference to other asbestos regulations.

At the request of the facility, this section has been removed from this statement of basis. The section is for informational purposes only.

§ 61.157 Delegation of authority.

(a) In delegating implementation and enforcement authority to a State under section 112(d) of the Act, the authorities contained in paragraph (b) of this section shall be retained by the Administrator and not transferred to a State.

(b) Authorities that will not be delegated to States:

(1) Section 61.149(c)(2)

(2) Section 61.150(a)(4)

(3) Section 61.151(c)

(4) Section 61.152(b)(3)

(5) Section 61.154(d)

(6) Section 61.155(a).

[55 FR 48433, Nov. 20, 1990]

Appendix A to Subpart M of Part 61—Interpretive Rule Governing Roof Removal Operations

I. Applicability of the Asbestos NESHAP

1.1. Asbestos-containing material (ACM) is material containing more than one percent asbestos as determined using the methods specified in appendix E, subpart E, 40 CFR part 763, section 1, Polarized Light Microscopy. The NESHAP classifies ACM as either “friable” or “nonfriable”. Friable ACM is ACM that, when dry, can be crumbled, pulverized or reduced to powder by hand pressure. Nonfriable ACM is ACM that, when dry, cannot be crumbled, pulverized or reduced to powder by hand pressure.

1.2. Nonfriable ACM is further classified as either Category I ACM or Category II ACM. Category I ACM and Category II ACM are distinguished from each other by their potential to release fibers when damaged. Category I ACM includes asbestos-containing gaskets, packings, resilient floor coverings, resilient floor covering mastic, and asphalt roofing products containing more than one percent asbestos. Asphalt roofing products which may contain asbestos include built-up roofing; asphalt-containing single ply membrane systems; asphalt shingles; asphalt-containing underlayment felts; asphalt-containing roof coatings and mastics; and asphalt-containing base flashings. ACM roofing products that use other bituminous or resinous binders (such as coal tars or pitches) are also considered to be Category I ACM. Category II ACM includes all other nonfriable ACM, for example, asbestos-cement (A/C) shingles, A/C tiles, and transite boards or panels containing more than one percent asbestos. Generally speaking, Category II ACM is more likely to become friable when damaged than is Category I ACM. The applicability of the NESHAP to Category I and II ACM depends on: (1) the condition of the material at the time of demolition or renovation, (2) the nature of the operation to which the material will be subjected, (3) the amount of ACM involved.

1.3. Asbestos-containing material regulated under the NESHAP is referred to as "regulated asbestos-containing material" (RACM). RACM is defined in §61.141 of the NESHAP and includes: (1) friable asbestos-containing material; (2) Category I nonfriable ACM that has become friable; (3) Category I nonfriable ACM that has been or will be sanded, ground, cut, or abraded; or (4) Category II nonfriable ACM that has already been or is likely to become crumbled, pulverized, or reduced to powder. If the coverage threshold for RACM is met or exceeded in a renovation or demolition operation, then all friable ACM in the operation, and in certain situations, nonfriable ACM in the operation, are subject to the NESHAP.

A. Threshold Amounts of Asbestos-Containing Roofing Material

1.A.1. The NESHAP does not cover roofing projects on single family homes or on residential buildings containing four or fewer dwelling units. 40 CFR 61.141. For other roofing renovation projects, if the total asbestos-containing roof area undergoing renovation is less than 160 ft², the NESHAP does not apply, regardless of the removal method to be used, the type of material (Category I or II), or its condition (friable versus nonfriable). 40 CFR 61.145(a)(4). However, EPA would recommend the use of methods that damage asbestos-containing roofing material as little as possible. EPA has determined that where a rotating blade (RB) roof cutter or equipment that similarly damages the roofing material is used to remove Category I nonfriable asbestos-containing roofing material, the removal of 5580 ft² of that material will create 160 ft² of RACM. For the purposes of this interpretive rule, "RB roof cutter" means an engine-powered roof cutting machine with one or more rotating cutting blades the edges of which are blunt. (Equipment with blades having sharp or tapered edges, and/or which does not use a rotating blade, is used for "slicing" rather than "cutting" the roofing material; such equipment is not included in the term "RB roof cutter".) Therefore, it is EPA's interpretation that when an RB roof cutter or equipment that similarly damages the roofing material is used to remove Category I nonfriable asbestos-containing roofing material, any project that is 5580 ft² or greater is subject to the NESHAP; conversely, it is EPA's interpretation that when an RB roof cutter or equipment that similarly damages the roofing material is used to remove Category I nonfriable asbestos-containing roofing material in a roof removal project that is less than 5580 ft², the project is not subject to the NESHAP, except that notification is always required for demolitions. EPA further construes the NESHAP to mean that if slicing or other methods that do not sand, grind, cut or abrade will be used on Category I nonfriable ACM, the NESHAP does not apply, regardless of the area of roof to be removed.

1.A.2. For asbestos cement (A/C) shingles (or other Category II roofing material), if the area of the roofing material to be removed is at least 160 ft² and the removal methods will crumble, pulverize, reduce to powder, or contaminate with RACM (from other ACM that has been crumbled, pulverized or reduced to powder) 160 ft² or more of such roofing material, the removal is subject to the NESHAP. Conversely, if the area of the A/C shingles (or other Category II roofing materials) to be removed is less than 160 ft², the removal is not subject to the NESHAP regardless of the removal method used, except that notification is always required for demolitions. 40 CFR 61.145(a). However, EPA would recommend the use of methods that damage asbestos-containing roofing material as little as possible. If A/C shingles (or other

Category II roofing materials) are removed without 160 ft² or more of such roofing material being crumbled, pulverized, reduced to powder, or contaminated with RACM (from other ACM that has been crumbled, pulverized or reduced to powder), the operation is not subject to the NESHAP, even where the total area of the roofing material to be removed exceeds 160 ft² ; provided, however, that if the renovation includes other operations involving RACM, the roof removal operation is covered if the total area of RACM from all renovation activities exceeds 160 ft² . See the definition of regulated asbestos-containing material (RACM), 40 CFR 61.141.

1.A.3. Only roofing material that meets the definition of ACM can qualify as RACM subject to the NESHAP. Therefore, to determine if a removal operation that meets or exceeds the coverage threshold is subject to the NESHAP, any suspect roofing material (i.e. roofing material that may be ACM) should be tested for asbestos. If any such roofing material contains more than one percent asbestos and if the removal operation is covered by the NESHAP, then EPA must be notified and the work practices in §61.145(c) must be followed. In EPA's view, if a removal operation involves at least the threshold level of suspect material, a roofing contractor may choose not to test for asbestos if the contractor follows the notification and work practice requirements of the NESHAP.

B. A/C Shingle Removal (Category II ACM Removal)

1.B.1. A/C shingles, which are Category II nonfriable ACM, become regulated ACM if the material has a high probability of becoming or has become crumbled, pulverized or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations. 40 CFR 61.141. However, merely breaking an A/C shingle (or any other category II ACM) that is not friable may not necessarily cause the material to become RACM. A/C shingles are typically nailed to buildings on which they are attached. EPA believes that the extent of breakage that will normally result from carefully removing A/C shingles and lowering the shingles to the ground will not result in crumbling, pulverizing or reducing the shingles to powder. Conversely, the extent of breakage that will normally occur if the A/C shingles are dropped from a building or scraped off of a building with heavy machinery would cause the shingles to become RACM. EPA therefore construes the NESHAP to mean that the removal of A/C shingles that are not friable, using methods that do not crumble, pulverize, or reduce the A/C shingles to powder (such as pry bars, spud bars and shovels to carefully pry the material), is not subject to the NESHAP provided that the A/C shingles are properly handled during and after removal, as discussed in this paragraph and the asbestos NESHAP. This interpretation also applies to other Category II nonfriable asbestos-containing roofing materials.

C. Cutting vs. Slicing and Manual Methods for Removal of Category I ACM

1.C.1. Because of damage to the roofing material, and the potential for fiber release, roof removal operations using rotating blade (RB) roof cutters or other equipment that sand, grind, cut or abrade the roof material are subject to the NESHAP. As EPA interprets the NESHAP, the use of certain manual methods (using equipment such as axes, hatchets, or knives, spud bars, pry bars, and shovels, but not saws) or methods that slice, shear, or punch (using equipment such as a power slicer or power plow) does not constitute "cutting, sanding, grinding or abrading." This is because these methods do not destroy the structural matrix or integrity of the material such that the material is crumbled, pulverized or reduced to powder. Hence, it is EPA's interpretation that when such methods are used, assuming the roof material is not friable, the removal operation is not subject to the regulation.

1.C.2. Power removers or power tear-off machines are typically used to pry the roofing material up from the deck after the roof membrane has been cut. It is EPA's interpretation that when these machines are used to pry roofing material up, their use is not regulated by the NESHAP.

1.C.3. As noted previously, the NESHAP only applies to the removal of asbestos-containing roofing materials. Thus, the NESHAP does not apply to the use of RB cutters to remove non-asbestos built up roofing (BUR). On roofs containing some asbestos-containing and some non-asbestos-containing materials, coverage under the NESHAP depends on the methods used to remove each type of material in addition to other coverage thresholds specified above. For example, it is not uncommon for existing roofs to be made of non-asbestos BUR and base flashings that do contain asbestos. In that situation, EPA

construes the NESHAP to be inapplicable to the removal of the non-asbestos BUR using an RB cutter so long as the RB cutter is not used to cut 5580 ft² or more of the asbestos-containing base flashing or other asbestos-containing material into sections. In addition, the use of methods that slice, shear, punch or pry could then be used to remove the asbestos flashings and not trigger coverage under the NESHAP.

II. Notification

2.1. Notification for a demolition is always required under the NESHAP. However, EPA believes that few roof removal jobs constitute “demolitions” as defined in the NESHAP (§61.141). In particular, it is EPA's view that the removal of roofing systems (i.e., the roof membrane, insulation, surfacing, coatings, flashings, mastic, shingles, and felt underlayment), when such removal is not a part of a demolition project, constitutes a “renovation” under the NESHAP. If the operation is a renovation, and Category I roofing material is being removed using either manual methods or slicing, notification is not required by the NESHAP. If Category II material is not friable and will be removed without crumbling, pulverizing, or reducing it to powder, no notification is required. Also, if the renovation involves less than the threshold area for applicability as discussed above, then no notification is required. However, if a roof removal meets the applicability and threshold requirements under the NESHAP, then EPA (or the delegated agency) must be notified in advance of the removal in accordance with the requirements of §61.145(b), as follows:

- Notification must be given in writing at least 10 working days in advance and must include the information in §61.145(b)(4), except for emergency renovations as discussed below.*
- The notice must be updated as necessary, including, for example, when the amount of asbestos-containing roofing material reported changes by 20 percent or more.*
- EPA must be notified if the start date of the roof removal changes. If the start date of a roof removal project is changed to an earlier date, EPA must be provided with a written notice of the new start date at least 10 working days in advance. If the start date changes to a later date, EPA must be notified by telephone as soon as possible before the original start date and a written notice must be sent as soon as possible.*
- For emergency renovations (as defined in §61.141), where work must begin immediately to avoid safety or public health hazards, equipment damage, or unreasonable financial burden, the notification must be postmarked or delivered to EPA as soon as possible, but no later than the following work day.*

III. Emission Control Practices

A. Requirements To Adequately Wet and Discharge No Visible Emission

3.A.1. The principal controls contained in the NESHAP for removal operations include requirements that the affected material be adequately wetted, and that asbestos waste be handled, collected, and disposed of properly. The requirements for disposal of waste materials are discussed separately in section IV below. The emission control requirements discussed in this section III apply only to roof removal operations that are covered by the NESHAP as set forth in Section I above.

3.A.2. For any operation subject to the NESHAP, the regulation (§§61.145(c)(2)(i), (3), (6)(i)) requires that RACM be adequately wet (as defined in §61.141) during the operation that damages or disturbs the asbestos material until collected for disposal.

3.A.3. When using an RB roof cutter (or any other method that sands, grinds, cuts or abrades the roofing material) to remove Category I asbestos-containing roofing material, the emission control requirements of §61.145(c) apply as discussed in Section I above. EPA will consider a roof removal project to be in compliance with the “adequately wet” and “discharge no visible emission” requirements of the NESHAP if the RB roof cutter is equipped and operated with the following: (1) a blade guard that completely encloses the blade and extends down close to the roof surface; and (2) a device for spraying a fine mist of water inside the blade guard, and which device is in operation during the cutting of the roof.

B. Exemptions From Wetting Requirements

3.B.1. The NESHAP provides that, in certain instances, wetting may not be required during the cutting of Category I asbestos roofing material with an RB roof cutter. If EPA determines in accordance with §61.145(c)(3)(i), that wetting will unavoidably damage the building, equipment inside the building, or will present a safety hazard while stripping the ACM from a facility component that remains in place, the roof removal operation will be exempted from the requirement to wet during cutting. EPA must have sufficient written information on which to base such a decision. Before proceeding with a dry removal, the contractor must have received EPA's written approval. Such exemptions will be made on a case-by-case basis.

3.B.2. It is EPA's view that, in most instances, exemptions from the wetting requirements are not necessary. Where EPA grants an exemption from wetting because of the potential for damage to the building, damage to equipment within the building or a safety hazard, the NESHAP specifies alternative control methods (§61.145(c)(3)(i)(B)). Alternative control methods include (a) the use of local exhaust ventilation systems that capture the dust, and do not produce visible emissions, or (b) methods that are designed and operated in accordance with the requirements of §61.152, or (c) other methods that have received the written approval of EPA. EPA will consider an alternative emission control method in compliance with the NESHAP if the method has received written approval from EPA and the method is being implemented consistent with the approved procedures (§61.145(c)(3)(ii) or §61.152(b)(3)).

3.B.3. An exemption from wetting is also allowed when the air or roof surface temperature at the point of wetting is below freezing, as specified in §61.145(c)(7). If freezing temperatures are indicated as the reason for not wetting, records must be kept of the temperature at the beginning, middle and end of the day on which wetting is not performed and the records of temperature must be retained for at least 2 years. 42 CFR §61.145(c)(7)(iii). It is EPA's interpretation that in such cases, no written application to, or written approval by the Administrator is needed for using emission control methods listed in §61.145(c)(3)(i)(B), or alternative emission control methods that have been previously approved by the Administrator. However, such written application or approval is required for alternative emission control methods that have not been previously approved. Any dust and debris collected from cutting must still be kept wet and placed in containers. All of the other requirements for notification and waste disposal would continue to apply as described elsewhere in this notice and the Asbestos NESHAP.

C. Waste Collection and Handling

3.C.1. It is EPA's interpretation that waste resulting from slicing and other methods that do not cut, grind, sand or abrade Category I nonfriable asbestos-containing roofing material is not subject to the NESHAP and can be disposed of as nonasbestos waste. EPA further construes the NESHAP to provide that if Category II roofing material (such as A/C shingles) is removed and disposed of without crumbling, pulverizing, or reducing it to powder, the waste from the removal is not subject to the NESHAP waste disposal requirements. EPA also interprets the NESHAP to be inapplicable to waste resulting from roof removal operations that do not meet or exceed the coverage thresholds described in section I above. Of course, other State, local, or Federal regulations may apply.

3.C.2. It is EPA's interpretation that when an RB roof cutter, or other method that similarly damages the roofing material, is used to cut Category I asbestos containing roofing material, the damaged material from the cut (the sawdust or debris) is considered asbestos containing waste subject to §61.150 of the NESHAP, provided the coverage thresholds discussed above in section I are met or exceeded. This sawdust or debris must be disposed of at a disposal site operated in accordance with the NESHAP. It is also EPA's interpretation of the NESHAP that if the remainder of the roof is free of the sawdust and debris generated by the cutting, or if such sawdust or debris is collected as discussed below in paragraphs 3.C.3, 3.C.4, 3.C.5 and 3.C.6, the remainder of the roof can be disposed of as nonasbestos waste because it is considered to be Category I nonfriable material (as long as the remainder of the roof is in fact nonasbestos material or if it is Category I asbestos material and the removal methods do not further sand, grind, cut or abrade the roof material). EPA further believes that if the roof is not cleaned of such sawdust or debris, i.e., it is contaminated, then it must be treated as asbestos-containing waste material and be handled in accordance with §61.150.

3.C.3. *In order to be in compliance with the NESHAP while using an RB roof cutter (or device that similarly damages the roofing material) to cut Category I asbestos containing roofing material, the dust and debris resulting from the cutting of the roof should be collected as soon as possible after the cutting operation, and kept wet until collected and placed in leak-tight containers. EPA believes that where the blade guard completely encloses the blade and extends down close to the roof surface and is equipped with a device for spraying a fine mist of water inside the blade guard, and the spraying device is in operation during the cutting, most of the dust and debris from cutting will be confined along the cut. The most efficient methods to collect the dust and debris from cutting are to immediately collect or vacuum up the damaged material where it lies along the cut using a filtered vacuum cleaner or debris collector that meets the requirements of 40 CFR 61.152 to clean up as much of the debris as possible, or to gently sweep up the bulk of the debris, and then use a filtered vacuum cleaner that meets the requirements of 40 CFR 61.152 to clean up as much of the remainder of the debris as possible. On smooth surfaced roofs (nonaggregate roofs), sweeping up the debris and then wet wiping the surface may be done in place of using a filtered vacuum cleaner. It is EPA's view that if these decontamination procedures are followed, the remaining roofing material does not have to be collected and disposed of as asbestos waste. Additionally, it is EPA's view that where such decontamination procedures are followed, if the remaining portions of the roof are non-asbestos or Category I nonfriable asbestos material, and if the remaining portions are removed using removal methods that slice, shear, punch or pry, as discussed in section 1.C above, then the remaining portions do not have to be collected and disposed of as asbestos waste and the NESHAP's no visible emissions and adequately wet requirements are not applicable to the removal of the remaining portions. In EPA's interpretation, the failure of a filtered vacuum cleaner or debris collector to collect larger chunks or pieces of damaged roofing material created by the RB roof cutter does not require the remaining roofing material to be handled and disposed of as asbestos waste, provided that such visible chunks or pieces of roofing material are collected (e.g. by gentle sweeping) and disposed of as asbestos waste. Other methods of decontamination may not be adequate, and should be approved by the local delegated agency.*

3.C.4. *In EPA's interpretation, if the debris from the cutting is not collected immediately, it will be necessary to lightly mist the dust or debris, until it is collected, as discussed above, and placed in containers. The dust or debris should be lightly misted frequently enough to prevent the material from drying, and to prevent airborne emissions, prior to collection as described above. It is EPA's interpretation of the NESHAP that if these procedures are followed, the remaining roofing material does not have to be collected and disposed of as asbestos waste, as long as the remaining roof material is in fact nonasbestos material or if it is Category I asbestos material and the removal methods do not further sand, grind, cut or abrade the roof material.*

3.C.5. *It is EPA's interpretation that, provided the roofing material is not friable prior to the cutting operation, and provided the roofing material has not been made friable by the cutting operation, the appearance of rough, jagged or damaged edges on the remaining roofing material, due to the use of an RB roof cutter, does not require that such remaining roofing material be handled and disposed of as asbestos waste. In addition, it is also EPA's interpretation that if the sawdust or debris generated by the use of an RB roof cutter has been collected as discussed in paragraphs 3.C.3, 3.C.4 and 3.C.6, the presence of dust along the edge of the remaining roof material does not render such material "friable" for purposes of this interpretive rule or the NESHAP, provided the roofing material is not friable prior to the cutting operation, and provided that the remaining roofing material near the cutline has not been made friable by the cutting operation. Where roofing material near the cutline has been made friable by the use of the RB cutter (i.e. where such remaining roofing material near the cutline can be crumbled, pulverized or reduced to powder using hand pressure), it is EPA's interpretation that the use of an encapsulant will ensure that such friable material need not be treated or disposed of as asbestos containing waste material. The encapsulant may be applied to the friable material after the roofing material has been collected into stacks for subsequent disposal as nonasbestos waste. It is EPA's view that if the encapsulation procedure set forth in this paragraph is followed in operations where roofing material near the cutline has been rendered friable by the use of an RB roof cutter, and if the decontamination procedures set forth in paragraph 3.C.3 have been followed, the NESHAP's no visible*

emissions and adequately wet requirements would be met for the removal, handling and disposal of the remaining roofing material.

3.C.6. As one way to comply with the NESHAP, the dust and debris from cutting can be placed in leak-tight containers, such as plastic bags, and the containers labeled using warning labels required by OSHA (29 CFR 1926.58). In addition, the containers must have labels that identify the waste generator (such as the name of the roofing contractor, abatement contractor, and/or building owner or operator) and the location of the site at which the waste was generated.

IV. Waste Disposal

A. Disposal Requirements

4.A.1. Section 61.150(b) requires that, as soon as is practical, all collected dust and debris from cutting as well as any contaminated roofing squares, must be taken to a landfill that is operated in accordance with §61.154 or to an EPA-approved site that converts asbestos waste to nonasbestos material in accordance with §61.155. During the loading and unloading of affected waste, asbestos warning signs must be affixed to the vehicles.

B. Waste Shipment Record

4.B.1. For each load of asbestos waste that is regulated under the NESHAP, a waste shipment record (WSR) must be maintained in accordance with §61.150(d). Information that must be maintained for each waste load includes the following:

- Name, address, and telephone number of the waste generator*
- Name and address of the local, State, or EPA regional office responsible for administering the asbestos NESHAP program*
- Quantity of waste in cubic meters (or cubic yards)*
- Name and telephone number of the disposal site operator*
- Name and physical site location of the disposal site*
- Date transported*
- Name, address, and telephone number of the transporter(s)*
- Certification that the contents meet all government regulations for transport by highways.*

4.B.2. The waste generator is responsible for ensuring that a copy of the WSR is delivered to the disposal site along with the waste shipment. If a copy of the WSR signed by the disposal site operator is not returned to the waste generator within 35 days, the waste generator must contact the transporter and/or the disposal site to determine the status of the waste shipment. 40 CFR 61.150(d)(3). If the signed WSR is not received within 45 days, the waste generator must report, in writing, to the responsible NESHAP program agency and send along a copy of the WSR. 40 CFR 61.150(d)(4). Copies of WSRs, including those signed by the disposal site operator, must be retained for at least 2 years. 40 CFR 61.150(d)(5).

V. Training

5.1. For those roof removals that are subject to the NESHAP, at least one on-site supervisor trained in the provisions of the NESHAP must be present during the removal of the asbestos roofing material. 40 CFR 61.145(c)(8). In EPA's view, this person can be a job foreman, a hired consultant, or someone who can represent the building owner or contractor responsible for the removal. In addition to the initial training requirement, a refresher training course is required every 2 years. The NESHAP training requirements became effective on November 20, 1991.

5.2. Asbestos training courses developed specifically to address compliance with the NESHAP in roofing work, as well as courses developed for other purposes can satisfy this requirement of the NESHAP, as long as the course covers the areas specified in the regulation. EPA believes that Asbestos Hazard Emergency Response Act (AHERA) training courses will, for example, satisfy the NESHAP training

requirements. However, nothing in this interpretive rule or in the NESHAP shall be deemed to require that roofing contractors or roofing workers performing operations covered by the NESHAP must be trained or accredited under AHERA, as amended by the Asbestos School Hazard Abatement Reauthorization Act (ASHARA). Likewise, state or local authorities may independently impose additional training, licensing, or accreditation requirements on roofing contractors performing operations covered by the NESHAP, but such additional training, licensing or accreditation is not called for by this interpretive rule or the federal NESHAP.

5.3. For removal of Category I asbestos containing roofing material where RB roof cutters or equipment that similarly damages the asbestos-containing roofing material are used, the NESHAP training requirements (§61.145(c)(8)) apply as discussed in Section I above. It is EPA's intention that removal of Category I asbestos-containing roofing material using hatchets, axes, knives, and/or the use of spud bars, pry bars and shovels to lift the roofing material, or similar removal methods that slice, punch, or shear the roof membrane are not subject to the training requirements, since these methods do not cause the roof removal to be subject to the NESHAP. Likewise, it is EPA's intention that roof removal operations involving Category II nonfriable ACM are not subject to the training requirements where such operations are not subject to the NESHAP as discussed in section I above.

The facility does not remove roofing materials, so this appendix does not apply.

7.6 MACT Applicability (40 CFR 63)

The facility has proposed to operate as a minor/major source of hazardous air pollutant (HAP) emissions, and is subject to the requirements of 40 CFR 63, Subpart AAAA–National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills. Refer to the Title V Classification section for additional information.

What This Subpart Covers

§ 63.1930 *What is the purpose of this subpart?*

This subpart establishes national emission standards for hazardous air pollutants for existing and new municipal solid waste (MSW) landfills. This subpart requires all landfills described in §63.1935 to meet the requirements of 40 CFR part 60, subpart Cc or WWW and requires timely control of bioreactors. This subpart also requires such landfills to meet the startup, shutdown, and malfunction (SSM) requirements of the general provisions of this part and provides that compliance with the operating conditions shall be demonstrated by parameter monitoring results that are within the specified ranges. It also includes additional reporting requirements.

§ 63.1935 *Am I subject to this subpart?*

You are subject to this subpart if you meet the criteria in paragraph (a) or (b) of this section.

(a) You are subject to this subpart if you own or operate a MSW landfill that has accepted waste since November 8, 1987 or has additional capacity for waste deposition and meets any one of the three criteria in paragraphs (a)(1) through (3) of this section:

(1) Your MSW landfill is a major source as defined in 40 CFR 63.2 of subpart A.

40 CFR 63.2 is as follows:

Major source means any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants, unless the Administrator establishes a lesser quantity, or in the case of radionuclides, different criteria from those specified in this sentence.

The total potential to emit, considering controls, of HAP are 0.1 T/yr, which is less than the major source threshold.

(2) Your MSW landfill is collocated with a major source as defined in 40 CFR 63.2 of subpart A.

(3) Your MSW landfill is an area source landfill that has a design capacity equal to or greater than 2.5 million megagrams (Mg) and 2.5 million cubic meters (m³) and has estimated uncontrolled emissions equal to or greater than 50 megagrams per year (Mg/yr) NMOC as calculated according to §60.754(a) of the MSW landfills new source performance standards in 40 CFR part 60, subpart WWW, the Federal plan, or an EPA approved and effective State or tribal plan that applies to your landfill.

The Milner Butte Landfill has accepted waste since November 8, 1987 and has a design capacity greater than 2.5 million megagrams and 2.5 million cubic meters. Therefore, the facility is subject to this subpart.

(b) You are subject to this subpart if you own or operate a MSW landfill that has accepted waste since November 8, 1987 or has additional capacity for waste deposition, that includes a bioreactor, as defined in §63.1990, and that meets any one of the criteria in paragraphs (b)(1) through (3) of this section:

(1) Your MSW landfill is a major source as defined in 40 CFR 63.2 of subpart A.

(2) Your MSW landfill is collocated with a major source as defined in 40 CFR 63.2 of subpart A.

(3) Your MSW landfill is an area source landfill that has a design capacity equal to or greater than 2.5 million Mg and 2.5 million m³ and that is not permanently closed as of January 16, 2003.

§ 63.1940 What is the affected source of this subpart?

(a) An affected source of this subpart is a MSW landfill, as defined in §63.1990, that meets the criteria in §63.1935(a) or (b). The affected source includes the entire disposal facility in a contiguous geographic space where household waste is placed in or on land, including any portion of the MSW landfill operated as a bioreactor.

(b) A new affected source of this subpart is an affected source that commenced construction or reconstruction after November 7, 2000. An affected source is reconstructed if it meets the definition of reconstruction in 40 CFR 63.2 of subpart A.

(c) An affected source of this subpart is existing if it is not new.

MBL is an existing affected source.

§ 63.1945 When do I have to comply with this subpart?

(a) If your landfill is a new affected source, you must comply with this subpart by January 16, 2003 or at the time you begin operating, whichever is last.

(b) If your landfill is an existing affected source, you must comply with this subpart by January 16, 2004.

MLB is an existing affected source and must comply by January 16, 2004.

(c) If your landfill is a new affected source and is a major source or is collocated with a major source, you must comply with the requirements in §§63.1955(b) and 63.1960 through 63.1980 by the date your landfill is required to install a collection and control system by 40 CFR 60.752(b)(2) of subpart WWW.

(d) If your landfill is an existing affected source and is a major source or is collocated with a major source, you must comply with the requirements in §§63.1955(b) and 63.1960 through 63.1980 by the date your landfill is required to install a collection and control system by 40 CFR 60.752(b)(2) of subpart WWW, the Federal plan, or EPA approved and effective State or tribal plan that applies to your landfill or by January 13, 2004, whichever occurs later.

MBL is not a major source.

(e) If your landfill is a new affected source and is an area source meeting the criteria in §63.1935(a)(3), you must comply with the requirements of §§63.1955(b) and 63.1960 through 63.1980 by the date your landfill is required to install a collection and control system by 40 CFR 60.752(b)(2) of subpart WWW.

(f) If your landfill is an existing affected source and is an area source meeting the criteria in §63.1935(a)(3), you must comply with the requirements in §§63.1955(b) and 63.1960 through 63.1980 by the date your landfill is required to install a collection and control system by 40 CFR 60.752(b)(2) of

subpart WWW, the Federal plan, or EPA approved and effective State or tribal plan that applies to your landfill or by January 16, 2004, whichever occurs later.

The facility must comply with the requirements of 1955(b) and 1960 – 1980.

§ 63.1947 When do I have to comply with this subpart if I own or operate a bioreactor?

You must comply with this subpart by the dates specified in §63.1945(a) or (b) of this subpart. If you own or operate a bioreactor located at a landfill that is not permanently closed as of January 16, 2003 and has a design capacity equal to or greater than 2.5 million Mg and 2.5 million m³, then you must install and operate a collection and control system that meets the criteria in 40 CFR 60.752(b)(2)(v) of part 60, subpart WWW, the Federal plan, or EPA approved and effective State plan according to the schedule specified in paragraph (a), (b), or (c) of this section.

(a) If your bioreactor is at a new affected source, then you must meet the requirements in paragraphs (a)(1) and (2) of this section:

(1) Install the gas collection and control system for the bioreactor before initiating liquids addition.

(2) Begin operating the gas collection and control system within 180 days after initiating liquids addition or within 180 days after achieving a moisture content of 40 percent by weight, whichever is later. If you choose to begin gas collection and control system operation 180 days after achieving a 40 percent moisture content instead of 180 days after liquids addition, use the procedures in §63.1980(g) and (h) to determine when the bioreactor moisture content reaches 40 percent.

(b) If your bioreactor is at an existing affected source, then you must install and begin operating the gas collection and control system for the bioreactor by January 17, 2006 or by the date your bioreactor is required to install a gas collection and control system under 40 CFR part 60, subpart WWW, the Federal plan, or EPA approved and effective State plan or tribal plan that applies to your landfill, whichever is earlier.

(c) If your bioreactor is at an existing affected source and you do not initiate liquids addition to your bioreactor until later than January 17, 2006, then you must meet the requirements in paragraphs (c)(1) and (2) of this section:

(1) Install the gas collection and control system for the bioreactor before initiating liquids addition.

(2) Begin operating the gas collection and control system within 180 days after initiating liquids addition or within 180 days after achieving a moisture content of 40 percent by weight, whichever is later. If you choose to begin gas collection and control system operation 180 days after achieving a 40 percent moisture content instead of 180 days after liquids addition, use the procedures in §63.1980(g) and (h) to determine when the bioreactor moisture content reaches 40 percent.

MBL does not have a bioreactor, so this section does not apply.

§ 63.1950 When am I no longer required to comply with this subpart?

You are no longer required to comply with the requirements of this subpart when you are no longer required to apply controls as specified in 40 CFR 60.752(b)(2)(v) of subpart WWW, or the Federal plan or EPA approved and effective State plan or tribal plan that implements 40 CFR part 60, subpart Cc, whichever applies to your landfill.

This applies.

§ 63.1952 When am I no longer required to comply with the requirements of this subpart if I own or operate a bioreactor?

If you own or operate a landfill that includes a bioreactor, you are no longer required to comply with the requirements of this subpart for the bioreactor provided you meet the conditions of either paragraphs (a) or (b).

(a) Your affected source meets the control system removal criteria in 40 CFR 60.752(b)(2)(v) of part 60, subpart WWW or the bioreactor meets the criteria for a nonproductive area of the landfill in 40 CFR 60.759(a)(3)(ii) of part 60, subpart WWW.

(b) The bioreactor portion of the landfill is a closed landfill as defined in 40 CFR 60.751, subpart WWW, you have permanently ceased adding liquids to the bioreactor, and you have not added liquids to the bioreactor for at least 1 year. A closure report for the bioreactor must be submitted to the Administrator as provided in 40 CFR 60.757(d) of subpart WWW.

(c) Compliance with the bioreactor control removal provisions in this section constitutes compliance with 40 CFR part 60, subpart WWW or the Federal plan, whichever applies to your bioreactor.

Standards

§ 63.1955 What requirements must I meet?

(a) You must fulfill one of the requirements in paragraph (a)(1) or (2) of this section, whichever is applicable:

(1) Comply with the requirements of 40 CFR part 60, subpart WWW.

(2) Comply with the requirements of the Federal plan or EPA approved and effective State plan or tribal plan that implements 40 CFR part 60, subpart Cc.

The Milner Butte Landfill is subject to, and will comply with, the requirements of 40 CFR Part 60, Subpart WWW.

(b) If you are required by 40 CFR 60.752(b)(2) of subpart WWW, the Federal plan, or an EPA approved and effective State or tribal plan to install a collection and control system, you must comply with the requirements in §§63.1960 through 63.1985 and with the general provisions of this part specified in table 1 of this subpart.

The Milner Butte Landfill is required by 40 CFR 60.752(b)(2) of Subpart WWW to install a collection and control system by February 21, 2012 and will comply with the requirements in Sec. 63.1960 through 63.1985 and the general provisions of this part.

(c) For approval of collection and control systems that include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions, you must follow the procedures in 40 CFR 60.752(b)(2). If alternatives have already been approved under 40 CFR part 60 subpart WWW or the Federal plan, or EPA approved and effective State or tribal plan, these alternatives can be used to comply with this subpart, except that all affected sources must comply with the SSM requirements in Subpart A of this part as specified in Table 1 of this subpart and all affected sources must submit compliance reports every 6 months as specified in §63.1980(a) and (b), including information on all deviations that occurred during the 6-month reporting period. Deviations for continuous emission monitors or numerical continuous parameter monitors must be determined using a 3 hour monitoring block average.

The Milner Butte Landfill will follow the procedures in CFR 60.752(b)(2) of Subpart WWW and/or approved alternatives. Alternative have been submitted within the collection and control system design plan dated August 19, 2010. The Milner Butte Landfill will comply with the SSM requirements in Subpart A of this part and will submit compliance reports every 6 months as specified in Sec. 63.1980(a) and (b).

(d) If you own or operate a bioreactor that is located at a MSW landfill that is not permanently closed and has a design capacity equal to or greater than 2.5 million Mg and 2.5 million m³, then you must meet the requirements of paragraph (a) and the additional requirements in paragraphs (d)(1) and (2) of this section.

(1) You must comply with the general provisions specified in Table 1 of this subpart and §§63.1960 through 63.1985 starting on the date you are required to install the gas collection and control system.

(2) You must extend the collection and control system into each new cell or area of the bioreactor prior to initiating liquids addition in that area, instead of the schedule in 40 CFR 60.752(b)(2)(ii)(A)(2).

MBL does not have a bioreactor.

General and Continuing Compliance Requirements

§ 63.1960 How is compliance determined?

Compliance is determined in the same way it is determined for 40 CFR part 60, subpart WWW, including performance testing, monitoring of the collection system, continuous parameter monitoring, and other credible evidence. In addition, continuous parameter monitoring data, collected under 40 CFR 60.756(b)(1), (c)(1), and (d) of subpart WWW, are used to demonstrate compliance with the operating conditions for control systems. If a deviation occurs, you have failed to meet the control device operating conditions described in this subpart and have deviated from the requirements of this subpart. Finally, you 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.

This applies.

§ 63.1965 What is a deviation?

A deviation is defined in §63.1990. For the purposes of the landfill monitoring and SSM plan requirements, deviations include the items in paragraphs (a) through (c) of this section.

(a) A deviation occurs when the control device operating parameter boundaries described in 40 CFR 60.758(c)(1) of subpart WWW are exceeded.

(b) A deviation occurs when 1 hour or more of the hours during the 3-hour block averaging period does not constitute a valid hour of data. A valid hour of data must have measured values for at least three 15-minute monitoring periods within the hour.

(c) A deviation occurs when a SSM plan is not developed or maintained on site.

§ 63.1975 How do I calculate the 3-hour block average used to demonstrate compliance?

Averages are calculated in the same way as they are calculated in 40 CFR part 60, subpart WWW, except that the data collected during the events listed in paragraphs (a), (b), (c), and (d) of this section are not to be included in any average computed under this subpart:

(a) Monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments.

(b) Startups.

(c) Shutdowns.

(d) Malfunctions.

This applies.

Notifications, Records, and Reports

§ 63.1980 What records and reports must I keep and submit?

(a) Keep records and reports as specified in 40 CFR part 60, subpart WWW, or in the Federal plan, EPA approved State plan or tribal plan that implements 40 CFR part 60, subpart Cc, whichever applies to your landfill, with one exception: You must submit the annual report described in 40 CFR 60.757(f) every 6 months.

(b) You must also keep records and reports as specified in the general provisions of 40 CFR part 60 and this part as shown in Table 1 of this subpart. Applicable records in the general provisions include items such as SSM plans and the SSM plan reports.

This applies.

(c) For bioreactors at new affected sources you must submit the initial semiannual compliance report and performance test results described in 40 CFR 60.757(f) within 180 days after the date you are required to begin operating the gas collection and control system by §63.1947(a)(2) of this subpart.

(d) For bioreactors at existing affected sources, you must submit the initial semiannual compliance report and performance test results described in 40 CFR 60.757(f) within 180 days after the compliance date specified in §63.1947(b) of this subpart, unless you have previously submitted a compliance report for the bioreactor required by 40 CFR part 60, subpart WWW, the Federal plan, or an EPA approved and effective State plan or tribal plan.

(e) For bioreactors that are located at existing affected sources, but do not initiate liquids addition until later than the compliance date in §63.1947(b) of this subpart, you must submit the initial semiannual compliance report and performance tests results described in 40 CFR 60.757(f) within 180 days after the date you are required to begin operating the gas collection and control system by §63.1947(c) of this subpart.

(f) If you must submit a semiannual compliance report for a bioreactor as well as a semiannual compliance report for a conventional portion of the same landfill, you may delay submittal of a subsequent semiannual compliance report for the bioreactor according to paragraphs (f)(1) through (3) of this section so that the reports may be submitted on the same schedule.

(1) After submittal of your initial semiannual compliance report and performance test results for the bioreactor, you may delay submittal of the subsequent semiannual compliance report for the bioreactor until the date the initial or subsequent semiannual compliance report is due for the conventional portion of your landfill.

(2) You may delay submittal of your subsequent semiannual compliance report by no more than 12 months after the due date for submitting the initial semiannual compliance report and performance test results described in 40 CFR 60.757(f) for the bioreactor. The report shall cover the time period since the previous semiannual report for the bioreactor, which would be a period of at least 6 months and no more than 12 months.

(3) After the delayed semiannual report, all subsequent semiannual reports for the bioreactor must be submitted every 6 months on the same date the semiannual report for the conventional portion of the landfill is due.

(g) If you add any liquids other than leachate in a controlled fashion to the waste mass and do not comply with the bioreactor requirements in §§63.1947, 63.1955(c) and 63.1980(c) through (f) of this subpart, you must keep a record of calculations showing that the percent moisture by weight expected in the waste mass to which liquid is added is less than 40 percent. The calculation must consider the waste mass, moisture content of the incoming waste, mass of water added to the waste including leachate recirculation and other liquids addition and precipitation, and the mass of water removed through leachate or other water losses. Moisture level sampling or mass balances calculations can be used. You must document the calculations and the basis of any assumptions. Keep the record of the calculations until you cease liquids addition.

(h) If you calculate moisture content to establish the date your bioreactor is required to begin operating the collection and control system under §63.1947(a)(2) or (c)(2), keep a record of the calculations including the information specified in paragraph (g) of this section for 5 years. Within 90 days after the bioreactor achieves 40 percent moisture content, report the results of the calculation, the date the bioreactor achieved 40 percent moisture content by weight, and the date you plan to begin collection and control system operation.

MBL does not have a bioreactor.

Other Requirements and Information

§ 63.1985 Who enforces this subpart?

(a) This subpart can be implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable State, local, or tribal agency. If the EPA Administrator has delegated authority to a State, local, or tribal agency, then that agency as well as the U.S. EPA has the authority to implement and enforce this subpart. Contact the applicable EPA Regional Office to find out if this subpart is delegated to a State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the EPA Administrator and are not transferred to the State, local, or tribal agency.

(c) The authorities that will not be delegated to State, local, or tribal agencies are as follows. Approval of alternatives to the standards in §63.1955. Where these standards reference another subpart, the cited provisions will be delegated according to the delegation provisions of the referenced subpart.

§ 63.1990 What definitions apply to this subpart?

Terms used in this subpart are defined in the Clean Air Act, 40 CFR part 60, subparts A, Cc, and WWW; 40 CFR part 62, subpart GGG, and subpart A of this part, and this section that follows:

Bioreactor means a MSW landfill or portion of a MSW landfill where any liquid other than leachate (leachate includes landfill gas condensate) is added in a controlled fashion into the waste mass (often in combination with recirculating leachate) to reach a minimum average moisture content of at least 40 percent by weight to accelerate or enhance the anaerobic (without oxygen) biodegradation of the waste.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart, including, but not limited to, any emissions limitation (including any operating limit) or work practice standard;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limitation, (including any operating limit), or work practice standard in this subpart during SSM, regardless of whether or not such failure is permitted by this subpart.

Emissions limitation means any emission limit, opacity limit, operating limit, or visible emissions limit.

EPA approved State plan means a State plan that EPA has approved based on the requirements in 40 CFR part 60, subpart B to implement and enforce 40 CFR part 60, subpart Cc. An approved State plan becomes effective on the date specified in the notice published in the Federal Register announcing EPA's approval.

Federal plan means the EPA plan to implement 40 CFR part 60, subpart Cc for existing MSW landfills located in States and Indian country where State plans or tribal plans are not currently in effect. On the effective date of an EPA approved State or tribal plan, the Federal plan no longer applies. The Federal plan is found at 40 CFR part 62, subpart GGG.

Municipal solid waste landfill or MSW landfill means an entire disposal facility in a contiguous geographical space where household waste is placed in or on land. A municipal solid waste landfill may also receive other types of RCRA Subtitle D wastes (see §257.2 of this chapter) such as commercial solid waste, nonhazardous sludge, conditionally exempt small quantity generator waste, and industrial solid waste. Portions of a municipal solid waste landfill may be separated by access roads. A municipal solid waste landfill may be publicly or privately owned. A municipal solid waste landfill may be a new municipal solid waste landfill, an existing municipal solid waste landfill, or a lateral expansion.

Tribal plan means a plan submitted by a tribal authority pursuant to 40 CFR parts 9, 35, 49, 50, and 81 to implement and enforce 40 CFR part 60, subpart Cc.

Work practice standard means any design, equipment, work practice, or operational standard, or combination thereof, that is promulgated pursuant to section 112(h) of the Clean Air Act.

As stated in §§63.1955 and 63.1980, you must meet each requirement in the following table that applies to you.

Table 1 to Subpart AAAA of Part 63—Applicability of NESHAP General Provisions to Subpart AAAA

<i>Part 63 Citation</i>	<i>Description</i>	<i>Explanation</i>
63.1(a)	<i>Applicability: general applicability of NESHAP in this part</i>	<i>Affected sources are already subject to the provisions of paragraphs (a)(10)–(12) through the same provisions under 40 CFR, part 60 subpart A.</i>
63.1(b)	<i>Applicability determination for stationary sources</i>	
63.1(e)	<i>Title V permitting</i>	
63.2	<i>Definitions</i>	
63.4	<i>Prohibited activities and circumvention</i>	<i>Affected sources are already subject to the provisions of paragraph (b) through the same provisions under 40 CFR, part 60 subpart A.</i>
63.5(b)	<i>Requirements for existing, newly constructed, and reconstructed sources</i>	
63.6(e)	<i>Operation and maintenance requirements, startup, shutdown and malfunction plan provisions</i>	
63.6(f)	<i>Compliance with nonopacity emission standards</i>	<i>Affected sources are already subject to the provisions of paragraphs (f)(1) and (2)(i) through the same provisions under 40 CFR, part 60 subpart A.</i>
63.10(b)(2)(i)– (b)(2)(v)	<i>General recordkeeping requirements</i>	
63.10(d)(5)	<i>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</i>	

63.12(a)	<i>These provisions do not preclude the State from adopting and enforcing any standard, limitation, etc., requiring permits, or requiring emissions reductions in excess of those specified</i>	
63.15	<i>Availability of information and confidentiality</i>	

Some of these apply.

7.7 CAM Applicability (40 CFR 64)

40 CFR 64 Compliance Assurance Monitoring

64.2(b) Exemptions —(1) Exempt emission limitations or standards. The requirements of this part shall not apply to any of the following emission limitations or standards:

(i) Emission limitations or standards proposed by the Administrator after November 15, 1990 pursuant to section 111 or 112 of the Act.

The flares at the landfill are not subject to enhanced monitoring as found at IDAPA 58.01.01.314.09(iv), later modified to the “Compliance Assurance Monitoring,” (CAM) Rule at 40 CFR Part 64. As per this regulation, emission limitations or standards proposed after November 15, 1990, pursuant to Clean Air Act section 111 or 112 are exempt from CAM (40 CFR §64.2(b)(1)). All applicable monitoring requirements from Subpart WWW have been included in the permit. Since Subpart WWW was promulgated on March 1996 under the authority of Clean Air Act Section 111 for New Source Performance Standards (NSPS), this standard is exempt from CAM requirements and no additional monitoring has been incorporated into the permit.

7.8 Acid Rain Permit (40 CFR 72-75)

The landfill is not subject to any of the source categories under regulation 40 CFR 72-75.

8. PUBLIC COMMENT

As required by IDAPA 58.01.01.364, a public comment period was made available to the public from March 9 through April 9, 2012. During this time, were no comments submitted in response to DEQ's proposed action.

9. EPA REVIEW OF PROPOSED PERMIT

As required by IDAPA 58.01.01.366, DEQ provided the proposed permit to EPA Region 10 for its review and comment on April 11, 2012 via e-mail. On April 20, 2012, EPA Region 10 responded to DEQ via e-mail indicating that the EPA will not be reviewing the permit, will not object to its issuance, and the permit is now eligible for issuance.

Appendix A – Emissions Inventory

Attachment B

**TABLE 1.
SUMMARY OF TOXIC AIR CONTAMINANT DATA
LANDFILL GAS CHARACTERIZATION
MILNER BUTTE LANDFILL
BURLEY, IDAHO**

CAS	COMPOUNDS			Compound Concentration Found in LFG ² (ppmv)
	TOXIC AIR CONTAMINANTS ¹			
71-55-6	1,1,1-Trichloroethane (methyl chloroform)			0.168
79-34-5	1,1,2,2-Tetrachloroethane			0.070
75-34-3	1,1-Dichloroethane			0.741
75-35-4	1,1-Dichloroethene			0.092
107-06-2	1,2-Dichloroethane			0.120
78-87-5	1,2-Dichloropropane			0.023
107-13-1	Acrylonitrile			0.036
71-43-2	Benzene			0.972
75-15-0	Carbon disulfide (3)			0.320
56-23-5	Carbon tetrachloride			0.007
463-58-1	Carbonyl sulfide (3)			0.183
108-90-7	Chlorobenzene			0.227
75-45-6	Chlorodifluoromethane (Freon 22)			0.355
75-00-3	Chloroethane (ethyl chloride)			0.239
67-66-3	Chloroform			0.021
106-46-7	Dichlorobenzene (1,2; 1,3; and 1,4)			1.607
75-09-2	Dichloromethane (Methylene Chloride)			3.395
100-41-4	Ethylbenzene			6.789
106-93-4	Ethylene Dibromide (Dibromoethane)			0.046
110-54-3	Hexane			2.324
7647-01-0	Hydrochloric acid ³			10.742
7783-06-4	Hydrogen sulfide			23.578
7439-97-6	Mercury ⁴			2.92E-04
74-87-3	Methyl Chloride (Chloromethane)			0.249
78-93-3	Methyl ethyl ketone			10.557
108-10-1	Methyl isobutyl ketone			0.750
127-18-4	Perchloroethylene (tetrachloroethylene)			1.193
108-88-3	Toluene			25.405
79-01-6	Trichloroethylene			0.681
75-01-4	Vinyl chloride			1.077
1330-20-7	Xylenes			16.582
TOTALS	TACs			108.549

NOTES:

- (1) Regulated toxic compounds include hazardous air pollutants (HAPs) defined by the U.S. EPA (Title III of the Clean Air Act)
- (2) Average concentration of compounds found in LFG based on "Waste Industry Air Coalition" (WIAC) Comparison of Recent Landfill Gas Analyses with or AP-42 if WIAC values not available.
- (3) Concentration of HCl is based on concentrations of chlorinated compounds in WIAC.
- (4) Concentration of Mercury based on the Revised EPA AP-42 Section 2.4 Table 2.4-1 (11/98).

NA = Not Analyzed
 ND = Not Detected
 CFCs = Chlorofluorohydrocarbons
 TACs = Toxic Air Contaminants

TABLE 2.
MAXIMUM POTENTIAL TO EMIT CONTROLLED EMISSIONS FROM LANDFILL GAS (EU 02)
MILNER BUTTE LANDFILL
BURLEY, IDAHO

CAS	COMPOUNDS ¹	Molecular Weight (g/Mol)	Concentration of Compounds Found in LFG ² (ppmv)	Pollutant Flow Rate to Flare ³ (tons/yr)	Compound-Specific Flare Destruction Efficiency ⁴	Controlled LFG Emissions After Flare Destruction (lbs/hr)	Controlled LFG Emissions After Flare Destruction ⁵ (tons/yr)
HAZARDOUS AIR POLLUTANTS							
71-55-6	1,1,1-Trichloroethane (methyl chloroform)	133.42	0.1680	0.02	98.00%	1.05E-04	4.59E-04
79-34-5	1,1,2,2-Tetrachloroethane	167.85	0.0700	0.01	98.00%	5.49E-05	2.41E-04
75-34-3	1,1-Dichloroethane	98.95	0.7410	0.08	98.00%	3.43E-04	1.50E-03
75-35-4	1,1-Dichloroethene	96.94	0.0920	0.01	98.00%	4.17E-05	1.83E-04
107-06-2	1,2-Dichloroethane	98.96	0.1200	0.01	98.00%	5.55E-05	2.43E-04
78-87-5	1,2-Dichloropropane	112.98	0.0230	0.00	98.00%	1.21E-05	5.32E-05
107-13-1	Acrylonitrile	53.06	0.0360	0.00	99.70%	1.34E-05	5.87E-06
71-43-2	Benzene	78.11	0.9720	0.08	99.70%	5.32E-05	2.33E-04
75-15-0	Carbon disulfide (7)	76.13	0.3200	0.02	100.00%	0.00E+00	0.00E+00
56-23-5	Carbon tetrachloride	153.84	0.0070	0.00	98.00%	5.03E-06	2.20E-05
463-58-1	Carbonyl sulfide	60.07	0.1830	0.01	100.00%	0.00E+00	0.00E+00
108-90-7	Chlorobenzene	112.56	0.2270	0.03	98.00%	1.19E-04	5.23E-04
75-45-6	Chlorodifluoromethane (Freon 22)	86.47	0.3550	0.03	98.00%	1.43E-04	6.28E-04
75-00-3	Chloroethane (ethyl chloride)	64.52	0.2390	0.02	98.00%	7.21E-05	3.16E-04
67-66-3	Chloroform	119.39	0.0210	0.00	98.00%	1.17E-05	5.13E-05
106-46-7	Dichlorobenzene	147	1.6070	0.24	98.00%	1.10E-03	4.84E-03
75-09-2	Dichloromethane (methylene chloride)	84.94	3.3950	0.30	98.00%	1.35E-03	5.90E-03
100-41-4	Ethylbenzene	106.16	6.7890	0.74	99.70%	5.05E-04	2.21E-03
106-93-4	Ethylene dibromide	187.88	0.0460	0.01	98.00%	4.04E-05	1.77E-04
110-54-3	Hexane	86.17	2.3240	0.20	99.70%	1.40E-04	6.15E-04
7647-01-0	Hydrochloric acid	36.50	10.7420	0.40	98.00%	9.25E-02	4.05E-01
7783-06-4	Hydrogen sulfide	34.08	23.5780	0.82	100.00%	0.00E+00	0.00E+00
7439-97-6	Mercury (total)	200.61	0.0003	0.00	0.0%	1.37E-05	6.00E-05
74-87-3	Methyl chloride (chloromethane)	50.49	0.2490	0.01	98.00%	5.88E-05	2.57E-04
78-93-3	Methyl ethyl ketone	72.11	10.5570	0.78	99.70%	5.34E-04	2.34E-03
108-10-1	Methyl isobutyl ketone	100.16	0.7500	0.08	99.70%	5.27E-05	2.31E-04
127-18-4	Perchloroethylene (tetrachloroethylene)	165.83	1.1930	0.20	98.00%	9.25E-04	4.05E-03
108-88-3	Toluene	92.13	25.4050	2.40	99.70%	1.64E-03	7.19E-03
79-01-6	Trichloroethylene	131.38	0.6810	0.09	98.00%	4.18E-04	1.83E-03
75-01-4	Vinyl chloride	62.50	1.0770	0.07	98.00%	3.15E-04	1.38E-03
1330-20-7	Xylenes	106.16	16.5820	1.80	99.70%	1.23E-03	5.41E-03
TOTALS	HAPs			8.47			4.46E-01
Total Non-Methane Organics (NMOCs) as Hexane		86.18	1200	105.86	98.00%	4.83E-01	2.12
Volatile Organic Compounds (VOCs)		86.18	468	41.29	98.00%	1.89E-01	0.83
Criteria Air Pollutants		Molecular Weight (g/Mol)	Concentration of Compound (ppmv)	Emission Factor (lb/MMBtu)⁶	Emission Factor (lb/hr/scfm methane)	Maximum Emissions from Flare (lbs/hr)	Maximum Emissions from Flare (tons/yr)
Nitrogen oxides (NOx)				0.060		2.70	11.83
Sulfur oxides (as SO ₂) ⁷		64.10	150.00			2.25	9.84
Carbon monoxide (CO)				0.200		9.00	39.42
Particulates (PM ₁₀)					0.001	0.75	3.29
TOTAL CRITERIA POLLUTANTS							64.37

NOTES:

- List of hazardous air pollutants (HAPs) regulated by U.S. EPA that are anticipated to be found in LFG as determined from a list in AP-42 Section 2.4
- Average concentration of compounds found in LFG based on "Waste Industry Air Coalition Comparison of Recent Landfill Gas Analyses with Historic AP-42 Values."
- Based on concentrations in Column D and proposed maximum landfill gas flow of flare
- Compound-specific flare destruction efficiencies: 98.0% for VOCs and NMOCs, 98% for Halogenated Species, 99.7% for Non-Halogenated Species, 0% for Mercury (per AP-42 Table 2.4-3)
- Controlled emissions of HAPs, NMOCs, and VOCs after destruction in flare equals uncontrolled emissions x (1- flare destruction efficiency).
- Controlled emissions of NOx, SOx, CO, and PM₁₀ were estimated with the following emission factors: NOx = 0.06 and CO = 0.2 lb/MMBtu (manufacturer's guarantee); PM-10 = 0.001 lb/hr/dscfm (AP-42); and SOx (assume conversion of reduced sulfur @ 150 ppmv to sulfur dioxide).
- Destruction efficiency of reduced sulfur compounds assumed to be 100%; i.e., complete conversion to sulfur dioxide

MODEL VARIABLES

Maximum capacity of flare:

1500 cfm

**TABLE 3.
ACTUAL CONTROLLED EMISSIONS FROM LANDFILL GAS (EU 02)
MILNER BUTTE LANDFILL
BURLEY, IDAHO**

CAS	COMPOUNDS ¹	Molecular Weight (g/Mol)	Concentration of Compounds Found in LFG ² (ppmv)	Pollutant Flow Rate to Flare ³ (tons/yr)	Compound-Specific Flare Destruction Efficiency ⁴	Controlled LFG Emissions After Flare Destruction (lbs/hr)	Controlled LFG Emissions After Flare Destruction ⁵ (tons/yr)
HAZARDOUS AIR POLLUTANTS							
71-55-6	1,1,1-Trichloroethane (methyl chloroform)	133.42	0.1680	0.01	98.00%	2.44E-05	1.07E-04
79-34-5	1,1,2,2-Tetrachloroethane	167.85	0.0700	0.00	98.00%	1.28E-05	5.61E-05
75-34-3	1,1-Dichloroethane	98.95	0.7410	0.02	98.00%	8.00E-05	3.50E-04
75-35-4	1,1-Dichloroethene	96.94	0.0920	0.00	98.00%	9.73E-06	4.26E-05
107-06-2	1,2-Dichloroethane	98.96	0.1200	0.00	98.00%	1.30E-05	5.67E-05
78-87-5	1,2-Dichloropropane	112.98	0.0230	0.00	98.00%	2.83E-06	1.24E-05
107-13-1	Acrylonitrile	53.06	0.0360	0.00	99.70%	3.12E-07	1.37E-06
71-43-2	Benzene	78.11	0.9720	0.02	99.70%	1.24E-05	5.44E-05
75-15-0	Carbon disulfide (7)	76.13	0.3200	0.01	100.00%	0.00E+00	0.00E+00
56-23-5	Carbon tetrachloride	153.84	0.0070	0.00	98.00%	1.17E-06	5.14E-06
463-58-1	Carbonyl sulfide	60.07	0.1830	0.00	100.00%	0.00E+00	0.00E+00
108-90-7	Chlorobenzene	112.56	0.2270	0.01	98.00%	2.79E-05	1.22E-04
75-45-6	Chlorodifluoromethane (Freon 22)	86.47	0.3550	0.01	98.00%	3.35E-05	1.47E-04
75-00-3	Chloroethane (ethyl chloride)	64.52	0.2390	0.00	98.00%	1.68E-05	7.37E-05
67-68-3	Chloroform	119.39	0.0210	0.00	98.00%	2.73E-06	1.20E-05
106-46-7	Dichlorobenzene	147	1.6070	0.06	98.00%	2.58E-04	1.13E-03
75-09-2	Dichloromethane (methylene chloride)	84.94	3.3950	0.07	98.00%	3.15E-04	1.38E-03
100-41-4	Ethylbenzene	106.16	6.7890	0.17	99.70%	1.18E-04	5.18E-04
106-93-4	Ethylene dibromide	187.88	0.0460	0.00	98.00%	9.43E-06	4.13E-05
110-54-3	Hexane	86.17	2.3240	0.05	99.70%	3.28E-05	1.43E-04
7647-01-0	Hydrochloric acid	36.50	10.7420	0.09	98.00%	2.16E-02	9.45E-02
7783-06-4	Hydrogen sulfide	34.08	23.5780	0.19	100.00%	0.00E+00	0.00E+00
7439-97-6	Mercury (total)	200.61	0.0003	0.00	0.00%	3.19E-06	1.40E-05
74-87-3	Methyl chloride (chloromethane)	50.49	0.2490	0.00	98.00%	1.37E-05	6.01E-05
78-93-3	Methyl ethyl ketone	72.11	10.5570	0.18	99.70%	1.25E-04	5.45E-04
108-10-1	Methyl isobutyl ketone	100.16	0.7500	0.02	99.70%	1.23E-05	5.38E-05
127-18-4	Perchloroethylene (tetrachloroethylene)	165.83	1.1930	0.05	98.00%	2.16E-04	9.45E-04
106-98-3	Toluene	92.13	25.4050	0.56	99.70%	3.83E-04	1.68E-03
79-01-6	Trichloroethylene	131.38	0.6810	0.02	98.00%	9.76E-05	4.27E-04
75-01-4	Vinyl chloride	62.50	1.0770	0.02	98.00%	7.34E-05	3.22E-04
1330-20-7	Xylenes	106.16	16.5820	0.42	99.70%	2.88E-04	1.28E-03
TOTALS	HAPs			1.98			1.04E-01
Total Non-Methane Organics (NMOs) as Hexane		86.18	1200	24.70	98.00%	1.13E-01	0.49
Volatile Organic Compounds (VOCs)		86.18	468.00	9.63	98.00%	4.40E-02	0.19
Criteria Air Pollutants		Molecular Weight (g/Mol)	Concentration of Compound (ppmv)	Emission Factor (lb/MMBtu)⁶	Emission Factor (lb/hr/scfm methane)	Estimated Emissions from Flare (lbs/hr)	Estimated Emissions from Flare (tons/yr)
Nitrogen oxides (NOx)				0.060		0.63	2.76
Sulfur oxides (as SO ₂) ⁷		64.10	150.00			0.52	2.30
Carbon monoxide (CO)				0.200		2.10	9.20
Particulates (PM10)					0.001	0.18	0.77
TOTAL CRITERIA POLLUTANTS							15.02

NOTES:

- List of hazardous air pollutants (HAPs) regulated by U.S. EPA that are anticipated to be found in LFG as determined from a list in AP-42 Section 2.4
- Average concentration of compounds found in LFG based on "Waste Industry Air Coalition Comparison of Recent Landfill Gas Analyses with Historic AP-42 Values."
- Based on concentrations in Column D and proposed maximum landfill gas flow of flare
- Compound-specific flare destruction efficiencies: 98.0% for VOCs and NMOs, 98% for Halogenated Species, 99.7% for Non-Halogenated Species, 0% for Mercury (per AP-42 Table 2.4-3)
- Controlled emissions of HAPs, NMOs, and VOCs after destruction in flare equals uncontrolled emissions x (1- flare destruction efficiency).
- Controlled emissions of NOx, SOx, CO, and PM10 were estimated with the following emission factors: NOx = 0.06 and CO = 0.2 lb/MMBtu (manufacturer's guarantee); PM-10 = 0.001 lb/hr/scfm (AP-42); and SOx (assume conversion of reduced sulfur @ 150 ppmv to sulfur dioxide).
- Destruction efficiency of reduced sulfur compounds assumed to be 100%; i.e., complete conversion to sulfur dioxide

MODEL VARIABLES

Current flare flow rate: 350 cfm
 Current methane content of LFG: 50.0%

**TABLE 4.
LANDFILL GAS NMOC AND VOC EMISSIONS (EU 01)
MILNER BUTTE LANDFILL
BURLEY, IDAHO**

Gas / Pollutant	Total LFG Production ^{1,2} (tons/yr)	LFG Collected by the GCCS ³ (tons/yr)	Fugitive LFG ³ (tons/yr)	Non-Fugitive LFG ⁴ (tons/yr)
NMOC	63.58	47.69	15.90	2.12
VOCs ²	24.80	18.60	6.20	0.83

Gas / Pollutant	Emission Rate ¹				
	(Mg/year)	(m3/year)	(av ft3/min)	(ft3/year)	(tons/year)
Total landfill gas	16,782	13,438,221	902.9	474,570,781	18,460.16
NMOC	58	16,126	1.1	569,485	63.58

Notes:

- (1) These emission rates were calculated based on the U.S. EPA LandGEM v3.02 model for 2010.
- (2) VOCs are calculated at 39% of NMOC (by weight) per AP-42 Table 2.4-2. for No or Unknown co-disposal.
- (3) Based on assumed GCCS gas collection efficiency of 75% per AP-42 paragraph 2.4.4.2.
- (4) Emissions after combustion in the flare and release from flare stack.

**TABLE 5.
ACTUAL FUGITIVE DUST EMISSIONS FROM WIND EROSION OF STOCKPLIES (EU 03)
MILNER BUTTE LANDFILL
BURLEY, IDAHO**

Pollutant	Particle Size Multiplier k^1	TSP Emission Factor 2	Emission Factor 3	Units	Total Exposed Area (acres)	Emissions Amount (tons/yr)
PM30	0.082	0.380	0.380	tons/acre-year	15.8	6.00
PM10	0.016	0.380	0.074	tons/acre-year	15.8	1.17
PM2.5	0.004	0.380	0.019	tons/acre-year	15.8	0.29

Notes:

(1) k values are from AP-42 Table 13.2-1.1.

(2) TSP (i.e., PM30) emission factor is 0.38 from AP-42 Table 11.9-4.

(3) Per AP-42, the emission factors are calculated as: $E_{PMX} = E_{PM30} \times (k_{PMX}) / (k_{PM30})$

**TABLE 6.
ACTUAL FUGITIVE DUST (PM_k) EMISSIONS FROM PAVED ROADS FOR REFUSE VEHICLES (EU 04)
MILNER BUTTE LANDFILL
BURLEY, IDAHO**

	Vehicle Miles Traveled Annually		Vehicle Weight ⁵ (tons)	PM2.5			PM10			PM30				
	paved	unpaved		Emission Factor for Paved Roads ² (lb/VMT)	Controlled Emission Factor for Paved Roads ³ (lb/VMT)	Annual Emissions from Paved Roads (tpy)	Emission Factor for Paved Roads ² (lb/VMT)	Controlled Emission Factor for Paved Roads ³ (lb/VMT)	Annual Emissions from Paved Roads (tpy)	Emission Factor for Paved Roads ² (lb/VMT)	Controlled Emission Factor for Paved Roads ³ (lb/VMT)	Annual Emissions from Paved Roads (tpy)		
Total trips in 2009⁴														
Commercial Refuse Vehicle (full)	1271.6	5086.4	4.9	19.6	23.2	0.202	0.050	0.032	0.806	0.202	0.128	4.133	1.033	0.657
Commercial Refuse Vehicle (empty)	1271.6	5086.4	4.9	19.6	13.5	0.090	0.022	0.014	0.359	0.090	0.057	1.840	0.460	0.293
Refuse Transfer Truck (full)	1460.0	5840.0	5.6	22.5	23.2	0.202	0.050	0.037	0.806	0.202	0.147	4.133	1.033	0.754
Refuse Transfer Truck (empty)	1460.0	5840.0	5.6	22.5	13.5	0.090	0.022	0.016	0.359	0.090	0.066	1.840	0.460	0.336
Self Haul Customer (Small Trucks, other vehicles)	8614	3445.6	0.0	13.3	2.0	0.005	0.001	0.002	0.020	0.005	0.009	0.104	0.026	0.045
Roll Off	494	197.6	790.4	0.8	3.0	0.202	0.050	0.005	0.806	0.202	0.020	4.133	1.033	0.102
TOTAL	9106	22643	35.0	87.1				0.107			0.427			2.187

Notes:

- (1) From the entrance to the public unloading area = 0.4 miles of paved road (roundtrip) based on road miles calculated by using the site map.
- (2) From the entrance to the landfill active area = 0.4 mile of paved road and 1.6 mile of unpaved road (roundtrip).
 (AP-42 Table 13.2-1.1)
 0.004 for PM2.5
 0.016 for PM10
 0.082 for PM30
 7.4 g/m²
- (3) Control efficiency is assumed to be 75% based on AP-42 Figure 13.2.2-2.
- (4) Number of trips based on 2009 scale records.
- (5) Vehicle Weights based on average 2009 Gross and Tare scale data.

s = silt loading factor =
 W = vehicle weight (tons)

**TABLE 7.
ACTUAL FUGITIVE DUST (PM) EMISSIONS FROM UNPAVED ROADS FOR REFUSE VEHICLES (EU 06)
MILNER BUTTE LANDFILL
BURLEY, IDAHO**

	Vehicle Miles Traveled ¹		Vehicle Weight ⁵ (tons)	Emission Factor for Unpaved Roads ² (lb/vmt)	PM2.5		Annual Emissions from Unpaved Roads ³ (tpy)	Emission Factor for Unpaved Roads ² (lb/vmt)	PM10		Annual Emissions from Unpaved Roads ³ (tpy)	Emission Factor for Unpaved Roads ² (lb/vmt)	PM30		
	Annually	Daily Average (5 days/wk)			Controlled Emission Factor for Unpaved Roads ³ (lb/vmt)	Annual Emissions from Unpaved Roads ³ (tpy)			Controlled Emission Factor for Unpaved Roads ³ (lb/vmt)	Annual Emissions from Unpaved Roads ³ (tpy)			Controlled Emission Factor for Unpaved Roads ³ (lb/vmt)	Annual Emissions from Unpaved Roads ³ (tpy)	
	Total trips in 2009 ⁴														
		paved	unpaved		(lb/vmt)	(lb/vmt)	(tpy)	(lb/vmt)	(lb/vmt)	(tpy)	(lb/vmt)	(lb/vmt)	(tpy)		
Commercial Refuse Vehicle (full)	6358	1271.6	5086.4	4.9	19.6	23.2	0.328	0.082	0.209	2.140	0.535	1.360	7.926	1.981	5.039
Commercial Refuse Vehicle (empty)	6358	1271.6	5086.4	4.9	19.6	13.5	0.257	0.064	0.164	1.678	0.420	1.067	6.218	1.554	3.953
Refuse Transfer Truck (full)	7300	1460.0	5840.0	5.6	22.5	23.2	0.328	0.082	0.239	2.140	0.535	1.562	7.926	1.981	5.786
Refuse Transfer Truck (empty)	7300	1460.0	5840.0	5.6	22.5	13.5	0.257	0.064	0.188	1.678	0.420	1.225	6.218	1.554	4.539
Customer (Small Trucks, other vehicles)	8614	3445.6	0.0	13.3	0.0	2.0	0.109	0.027	0.000	0.710	0.177	0.000	2.629	0.657	0.000
Roll Off	494	197.6	790.4	0.8	3.0	23.2	0.328	0.082	0.032	2.140	0.535	0.211	7.926	1.981	0.783
TOTAL		9106	22643	35.0	87.1			0.832			6.426				20.100

Notes:

(1) From the entrance to the public unloading area = 0.06 miles of paved road (roundtrip) based on road miles calculated by using the site map.
From the entrance to the landfill active area = 0.152 mile of paved road and 0.54 mile of unpaved road (roundtrip).

(2) Emission factor $E = k^*(s/12)^a*(W/3)^b$, where k = particle size multiplier =

(AP-42 Table 13.2.2-2)
(AP-42 Table 13.2.2-2)
(AP-42 Table 13.2.2-2)
(AP-42 Table 13.2.2-1)

s = surface material silt content (%) =
 W = vehicle weight (tons)

0.23 for PM2.5
1.5 for PM10
4.9 for PM30
6.4
0.9 for PM2.5
0.9 for PM10
0.7 for PM30
0.45 for PM2.5
0.45 for PM10
0.45 for PM30

(3) Control efficiency is assumed to be 75% based on AP-42 Figure 13.2.2-2.

(4) Number of trips based on 2009 scale records.

(5) Vehicle Weights based on average 2009 Gross and Tare scale data.

**TABLE 8.
SCREENING EMISSIONS LEVELS AND ACCEPTABLE AMBIENT CONCENTRATIONS
NON-CARCINOGENIC AND CARCINOGENIC COMPOUNDS
MILNER BUTTE LANDFILL
BURLEY, IDAHO**

CAS	COMPOUNDS	EL (lb/hr)	AAC (24hr avg) (mg/m ³) ³	AAC (Annual avg) (mg/m ³) ⁴	Actual Emissions (lb/hr)	Emissions Over EL	PTE Emissions (lb/hr)	Emissions Over EL
HAZARDOUS AIR POLLUTANTS								
71-55-6	1,1,1-Trichloroethane (methyl chloroform)	127	95.5	-	2.44E-05	No	1.05E-04	No
79-34-5	1,1,1,2,2-Tetrachloroethane	1.10E-05	-	1.70E-02	1.28E-05	Yes	5.49E-05	Yes
75-34-3	1,1-Dichloroethane	2.50E-04	-	3.80E-02	8.00E-05	No	3.43E-04	Yes
75-35-4	1,1-Dichloroethene (1,1-Dichloroethylene)	1.30E-04	-	2.00E-02	9.73E-06	No	4.17E-05	No
107-06-2	1,2-Dichloroethane	2.50E-04	-	3.80E-02	1.30E-05	No	5.55E-05	No
78-87-5	1,2-Dichloropropane (Propylene dichloride)	23.133	17.35	-	2.83E-06	No	1.21E-05	No
107-13-1	Acrylonitrile	9.80E-05	-	1.50E-02	3.12E-07	No	1.34E-06	No
71-43-2	Benzene	8.00E-04	-	1.20E-01	1.24E-05	No	5.32E-05	No
75-15-0	Carbon disulfide	2	1.5	-	0.00E+00	No	0.00E+00	No
56-23-5	Carbon tetrachloride	4.40E-04	-	6.70E-02	1.17E-06	No	5.03E-06	No
463-58-1	Carbonyl sulfide	0.027	0.02	-	0.00E+00	No	0.00E+00	No
108-90-7	Chlorobenzene	23.3	17.5	-	2.79E-05	No	1.19E-04	No
75-45-6	Chlorodifluoromethane (Freon 22) ¹	-	-	-	3.35E-05	No	1.43E-04	No
75-00-3	Chloroethane (ethyl chloride)	176	132	-	1.68E-05	No	7.21E-05	No
67-66-3	Chloroform	2.80E-04	-	4.30E-02	2.73E-06	No	1.17E-05	No
106-46-7	Dichlorobenzene (1,2; 1,3; and 1,4)	30	22.5	-	2.58E-04	No	1.10E-03	No
75-09-2	Dichloromethane (Methylene chloride)	1.60E-03	-	2.40E-01	3.15E-04	No	1.35E-03	No
100-41-4	Ethylbenzene	29	21.75	-	1.18E-04	No	5.05E-04	No
106-93-4	Ethylene Dibromide (Dibromoethane)	3.00E-05	-	4.50E-03	9.43E-06	No	4.04E-05	Yes
110-54-3	Hexane	12	9	-	3.28E-05	No	1.40E-04	No
7647-01-0	Hydrochloric acid (Hydrogen chloride)	5.00E-02	0.375	-	2.16E-02	No	9.25E-02	Yes
7783-06-4	Hydrogen sulfide	0.933	0.7	-	0.00E+00	No	0.00E+00	No
7439-97-6	Mercury ²	1.00E-03	5.00E-04	-	3.19E-06	No	1.37E-05	No
74-87-3	Methyl Chloride (Chloromethane)	6.867	5.15	-	1.37E-05	No	5.88E-05	No
78-93-3	Methyl ethyl ketone	39.3	29.5	-	1.25E-04	No	5.34E-04	No
108-10-1	Methyl isobutyl ketone	13.7	10.25	-	1.23E-05	No	5.27E-05	No
127-18-4	Perchloroethylene (tetrachloroethylene)	1.30E-02	-	2.1	2.16E-04	No	9.25E-04	No
108-88-3	Toluene	25	18.75	-	3.83E-04	No	1.64E-03	No
79-01-6	Trichloroethylene	17.93	13.45	-	9.76E-05	No	4.18E-04	No
75-01-4	Vinyl chloride	9.40E-04	-	1.40E-01	7.34E-05	No	3.15E-04	No
1330-20-7	Xylenes	29	21.75	-	2.88E-04	No	1.23E-03	No

Notes:

- (1) Neither compound nor CAS number listed in IDAPA 58.01.01.585 - 586.
- (2) Emissions level and acceptable ambient concentrations for Mercury are lowest concentrations listed per IDAPA 58.01.01.585.
- (3) 24-hour average concentrations are for non-carcinogenic substances.
- (4) Annual average concentrations are for carcinogenic substances.

TABLE 9.
CRITERIA POLLUTANT, PM, AND NMOC EMISSION SUMMARY
MILNER BUTTE LANDFILL
BURLEY, IDAHO

Criteria Air Pollutants	lbs/hr	tons/year
Volatile Organic Compounds (VOCs)	4.43	7.03
Nitrogen oxides (NO _x)	2.70	11.83
Sulfur oxides (as SO ₂)	2.25	9.84
Carbon monoxide (CO)	9.00	39.42
Particulates (PM ₁₀)	2.35	10.31
TOTAL CRITERIA POLLUTANTS	20.74	78.42

Pollutant	lbs/hr	tons/year
Particulates (PM _{2.5})	0.28	1.23
Particulates (PM ₃₀)	6.46	28.29
Total Non-Methane Organics (NMOCs) as Hexane	4.11	18.01

Note:

All values are potential to emit (PTE) except for particulate emissions, because PTE emissions for particulates cannot be calculated.