State of Utah

SPENCER J. COX
Governor

DEIDRE HENDERSON
Lieutenant Governor

Department of
Environmental Quality

Kimberly D. Shelly
Executive Director

DIVISION OF AIR QUALITY
Bryce C. Bird
Director

11362

Title V Operating Permit

PERMIT NUMBER: 3500536003
DATE OF PERMIT: May 27, 2020
Date of Last Revision: TBD

This Operating Permit is issued to, and applies to the following:

Name of Permittee:

Salt Lake Valley Solid Waste Management
6030 West 1300 South
Salt Lake City, UT 84104

Permitted Location:

Salt Lake Valley Landfill & Transfer Station
6030 West 1300 South
Salt Lake City, UT 84104

UTM coordinates: 412,867 m Easting, 4,510,408 m Northing
SIC code: 4953 (Refuse Systems)

By:

_____
Bryce C. Bird, Director

Prepared By:

Jared Crosby
jaredcrosby@utah.gov

ENFORCEABLE DATES AND TIMELINES

The following dates or timeframes are referenced in Section I: General Provisions of this permit.

Annual Certification Due:	April 15 of every calendar year that this permit is in force.
Renewal application due:	November 27, 2024
Permit expiration date:	May 27, 2025
Definition of "prompt":	written notification within 14 days.

ABSTRACT

The Salt Lake Valley Solid Waste Management Facility operates the Salt Lake Valley Landfill, a municipal solid waste (MSW) landfill located in Salt Lake County, a non-attainment area for particle matter less than 2.5-microns in diameter ($PM_{2.5}$), sulfur dioxide (SO_2), and ozone; and a maintenance area for particle matter less than 10-microns in diameter (PM_{10}) and carbon monoxide (CO). The facility accepts municipal and industrial solid waste. Salt Lake Valley Landfill is a Title V source, and is subject to 40 CFR 62 (Approval and Promulgation of State Plans for Designated Facilities and Pollutants), Subpart A (General Provisions), and Subpart OOO (Federal Plan Requirements for Municipal Solid Waste Landfills). Salt Lake Valley Landfill is also subject to 40 CFR 63 (National Emissions Standards for Hazardous Air Pollutants, or NESHAPS), Subpart A (General Provisions), Subpart ZZZZ (National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines), and Subpart AAAA (National Emissions Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills). Salt Lake Valley Landfill is also subject to 40 CFR 61 (National Emissions Standards for Hazardous Air Pollutants) Subpart A (General Provisions), and Subpart M (National Emission Standards for Asbestos: Standards for Active Waste Disposal Sites).

OPERATING PERMIT HISTORY

Permit/Activity	Date Issued	Recorded Changes
Title V reopening for cause by DAQ (Project #OPP0113620006)	TBD	Changes: This reopening incorporates applicable requirements from 40 CFR 62 Subpart OOO and 40 CFR 63 Subpart AAAA, and makes an update to the Monitoring and Recordkeeping of the 40 CFR 61 Subpart M conditions.
Title V renewal application (Project #OPP0113620005)	5/27/2020	Changes: to incorporate requirements from AO DAQE-AN113620001-15 and NESHAP Subpart ZZZZ
Title V renewal application (Project #OPP0113620004)	06/23/2015	Additions: Added opacity monitoring, run time limitations, and removed references to installing the landfill gas collection and control system (GCCS) since it is installed and operating. Deletions: Removed ancillary equipment from equipment list and only the equipment for the landfill is required to obtain a permit under 40 CFR Part 70 is included.
Title V reopening for cause by DAQ (Project #OPP0113620002)	10/26/2004	Changes: to incorporate requirements from new MACT standard 40 CFR Part 63 Subpart AAAA
Title V initial application (Project #OPP0113620001)	05/21/2002	

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Issued under authority of Utah Code Ann. Section 19-2-104 and 19-2-109.1, and in accordance with Utah Administrative Code R307-415 Operating Permit Requirements.

All definitions, terms and abbreviations used in this permit conform to those used in Utah Administrative Code R307-101 and R307-415 (Rules), and 40 Code of Federal Regulations (CFR), except as otherwise defined in this permit. Unless noted otherwise, references cited in the permit conditions refer to the Rules.

Where a permit condition in Section I, General Provisions, partially recites or summarizes an applicable rule, the full text of the applicable portion of the rule shall govern interpretations of the requirements of the rule. In the case of a conflict between the Rules and the permit terms and conditions of Section II, Special Provisions, the permit terms and conditions of Section II shall govern except as noted in Provision I.M, Permit Shield.

SECTION I: GENERAL PROVISIONS

I.A **Federal Enforcement.**

All terms and conditions in this permit, including those provisions designed to limit the potential to emit, are enforceable by the EPA and citizens under the Clean Air Act of 1990 (CAA) except those terms and conditions that are specifically designated as "State Requirements". (R307-415-6b)

I.B **Permitted Activity(ies).**

Except as provided in R307-415-7b(1), the permittee may not operate except in compliance with this permit. (See also Provision I.E, Application Shield)

I.C **Duty to Comply.**

I.C.1 The permittee must comply with all conditions of the operating permit. Any permit noncompliance constitutes a violation of the Air Conservation Act and is grounds for any of the following: enforcement action; permit termination; revocation and reissuance; modification; or denial of a permit renewal application. (R307-415-6a(6)(a))

I.C.2 It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. (R307-415-6a(6)(b))

I.C.3 The permittee shall furnish to the Director, within a reasonable time, any information that the Director may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director copies of records required to be kept by this permit or, for information claimed to be confidential, the permittee may furnish such records directly to the EPA along with a claim of confidentiality. (R307-415-6a(6)(e))

I.C.4 This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance shall not stay any permit condition, except as provided under R307-415-7f(1) for minor permit modifications. (R307-415-6a(6)(c))

I.D **Permit Expiration and Renewal.**

I.D.1 This permit is issued for a fixed term of five years and expires on the date shown under "Enforceable Dates and Timelines" at the front of this permit. (R307-415-6a(2))

I.D.2 Application for renewal of this permit is due on or before the date shown under "Enforceable Dates and Timelines" at the front of this permit. An application may be submitted early for any reason. (R307-415-5a(1)(c))

I.D.3 An application for renewal submitted after the due date listed in I.D.2 above shall be accepted for processing, but shall not be considered a timely application and shall not relieve the permittee of any enforcement actions resulting from submitting a late application. (R307-415-5a(5))

I.D.4 Permit expiration terminates the permittee's right to operate unless a timely and complete renewal application is submitted consistent with R307-415-7b (see also Provision I.E, Application Shield) and R307-415-5a(1)(c) (see also Provision I.D.2). (R307-415-7c(2))

I.E **Application Shield.**

If the permittee submits a timely and complete application for renewal, the permittee's failure to have an operating permit will not be a violation of R307-415, until the Director takes final action on the permit renewal application. In such case, the terms and conditions of this permit shall remain in force until permit renewal or denial. This protection shall cease to apply if, subsequent to the completeness determination required pursuant to R307-415-7a(3), and as required by R307-415-5a(2), the applicant fails to submit by the deadline specified in writing by the Director any additional information identified as being needed to process the application. (R307-415-7b(2))

I.F **Severability.**

In the event of a challenge to any portion of this permit, or if any portion of this permit is held invalid, the remaining permit conditions remain valid and in force. (R307-415-6a(5))

I.G **Permit Fee.**

I.G.1 The permittee shall pay an annual emission fee to the Director consistent with R307-415-9. (R307-415-6a(7))

I.G.2 The emission fee shall be due on October 1 of each calendar year or 45 days after the source receives notice of the amount of the fee, whichever is later. (R307-415-9(4)(a))

I.H **No Property Rights.**

This permit does not convey any property rights of any sort, or any exclusive privilege. (R307-415-6a(6)(d))

I.I **Revision Exception.**

No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit. (R307-415-6a(8))

I.J **Inspection and Entry.**

I.J.1 Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director or an authorized representative to perform any of the following:

I.J.1.a Enter upon the permittee's premises where the source is located or emissions related activity is conducted, or where records are kept under the conditions of this permit. (R307-415-6c(2)(a))

I.J.1.b Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit. (R307-415-6c(2)(b))

I.J.1.c Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practice, or operation regulated or required under this permit. (R307-415-6c(2)(c))

I.J.1.d Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with this permit or applicable requirements. (R307-415-6c(2)(d))

I.J.2 Any claims of confidentiality made on the information obtained during an inspection shall be made pursuant to Utah Code Ann. Section 19-1-306. (R307-415-6c(2)(e))

I.K **Certification.**

Any application form, report, or compliance certification submitted pursuant to this permit shall contain certification as to its truth, accuracy, and completeness, by a responsible official as defined in R307-415-3. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. (R307-415-5d)

I.L **Compliance Certification.**

I.L.1 Permittee shall submit to the Director an annual compliance certification, certifying compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. This certification shall be submitted no later than the date shown under "Enforceable Dates and Timelines" at the front of this permit, and that date each year following until this permit expires. The certification shall include all the following (permittee may cross-reference this permit or previous reports): (R307-415-6c(5))

I.L.1.a The identification of each term or condition of this permit that is the basis of the certification;

I.L.1.b The identification of the methods or other means used by the permittee 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 monitoring and related recordkeeping and reporting requirements in this permit. If necessary, the permittee also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Act, which prohibits knowingly making a false certification or omitting material information;

I.L.1.c The status of compliance with the terms and conditions of the 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 Provision I.L.1.b. 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

I.L.1.d Such other facts as the Director may require to determine the compliance status.

I.L.2 The permittee shall also submit all compliance certifications to the EPA, Region VIII, at the following address or to such other address as may be required by the Director: (R307-415-6c(5)(d))

Environmental Protection Agency, Region VIII
Office of Enforcement, Compliance and Environmental Justice
(mail code 8ENF)
1595 Wynkoop Street
Denver, CO 80202-1129

I.M **Permit Shield.**

I.M.1 Compliance with the provisions of this permit shall be deemed compliance with any applicable requirements as of the date of this permit, provided that:

I.M.1.a Such applicable requirements are included and are specifically identified in this permit, or (R307-415-6f(1)(a))

I.M.1.b Those requirements not applicable to the source are specifically identified and listed in this permit. (R307-415-6f(1)(b))

I.M.2 Nothing in this permit shall alter or affect any of the following:

I.M.2.a The emergency provisions of Utah Code Ann. Section 19-1-202 and Section 19-2-112, and the provisions of the CAA Section 303. (R307-415-6f(3)(a))

I.M.2.b The liability of the owner or operator of the source for any violation of applicable requirements under Utah Code Ann. Section 19-2-107(2)(a)xiii and Section 19-2-110 prior to or at the time of issuance of this permit. (R307-415-6f(3)(b))

I.M.2.c The applicable requirements of the Acid Rain Program, consistent with the CAA Section 408(a). (R307-415-6f(3)(c))

I.M.2.d The ability of the Director to obtain information from the source under Utah Code Ann. Section 19-2-120, and the ability of the EPA to obtain information from the source under the CAA Section 114. (R307-415-6f(3)(d))

I.N **Emergency Provision.**

I.N.1 An "emergency" is any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under this permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error. (R307-415-6g(1))

I.N.2 An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the affirmative defense is demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

I.N.2.a An emergency occurred and the permittee can identify the causes of the emergency. (R307-415-6g(3)(a))

I.N.2.b The permitted facility was at the time being properly operated. (R307-415-6g(3)(b))

I.N.2.c During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in this permit. (R307-415-6g(3)(c))

I.N.2.d The permittee submitted notice of the emergency to the Director within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken. This notice fulfills the requirement of Provision I.S.2.c below. (R307-415-6g(3)(d))

I.N.3 In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof. (R307-415-6g(4))

I.N.4 This emergency provision is in addition to any emergency or upset provision contained in any other section of this permit. (R307-415-6g(5))

I.O **Operational Flexibility.**

Operational flexibility is governed by R307-415-7d(1).

I.P **Off-permit Changes.**

Off-permit changes are governed by R307-415-7d(2).

I.Q **Administrative Permit Amendments.**

Administrative permit amendments are governed by R307-415-7e.

I.R **Permit Modifications.**

Permit modifications are governed by R307-415-7f.

I.S **Records and Reporting.**

I.S.1 Records.

I.S.1.a The records of all required monitoring data and support information shall be retained by the permittee for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, all original strip-charts or appropriate recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. (R307-415-6a(3)(b)(ii))

I.S.1.b For all monitoring requirements described in Section II, Special Provisions, the source shall record the following information, where applicable: (R307-415-6a(3)(b)(i))

I.S.1.b.1 The date, place as defined in this permit, and time of sampling or measurement.

I.S.1.b.2 The date analyses were performed.

I.S.1.b.3 The company or entity that performed the analyses.

I.S.1.b.4 The analytical techniques or methods used.

I.S.1.b.5 The results of such analyses.

I.S.1.b.6 The operating conditions as existing at the time of sampling or measurement.

I.S.1.c Additional record keeping requirements, if any, are described in Section II, Special Provisions.

I.S.2 Reports.

I.S.2.a Monitoring reports shall be submitted to the Director every six months, or more frequently if specified in Section II. All instances of deviation from permit requirements shall be clearly identified in the reports. (R307-415-6a(3)(c)(i))

I.S.2.b All reports submitted pursuant to Provision I.S.2.a shall be certified by a responsible official in accordance with Provision I.K of this permit. (R307-415-6a(3)(c)(i)

I.S.2.c The Director shall be notified promptly of any deviations from permit requirements including those attributable to upset conditions as defined in this permit, the probable cause of such deviations, and any corrective actions or preventative measures taken. Prompt, as used in this condition, shall be defined as written notification within the number of days shown under "Enforceable Dates and Timelines" at the front of this permit. Deviations from permit requirements due to breakdowns shall be reported in accordance with the provisions of R307-107. (R307-415-6a(3)(c)(ii))

I.S.3 Notification Addresses.

I.S.3.a All reports, notifications, or other submissions required by this permit to be submitted to the Director are to be sent to the following address or to such other address as may be required by the Director:

Utah Division of Air Quality
P.O. Box 144820
Salt Lake City, UT 84114-4820
Phone: 801-536-4000

I.S.3.b All reports, notifications or other submissions required by this permit to be submitted to the EPA should be sent to one of the following addresses or to such other address as may be required by the Director:

For annual compliance certifications:

Environmental Protection Agency, Region VIII
Office of Enforcement, Compliance and Environmental Justice
(mail code 8ENF)
1595 Wynkoop Street
Denver, CO 80202-1129

For reports, notifications, or other correspondence related to permit modifications, applications, etc.:

Environmental Protection Agency, Region VIII
Air Permitting and Monitoring Branch (mail code8ARD-PM)
1595 Wynkoop Street
Denver, CO 80202-1129
Phone: 303-312-6927

I.T **Reopening for Cause.**

I.T.1 A permit shall be reopened and revised under any of the following circumstances:

I.T.1.a New applicable requirements become applicable to the permittee and there is a remaining permit term of three or more years. No such reopening is required if the effective date of the requirement is later than the date on which this permit is due to expire, unless the terms and conditions of this permit have been extended pursuant to R307-415-7c(3), application shield. (R307-415-7g(1)(a))

I.T.1.b The Director or EPA determines that this permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit. (R307-415-7g(1)(c))

I.T.1.c EPA or the Director determines that this permit must be revised or revoked to assure compliance with applicable requirements. (R307-415-7g(1)(d))

I.T.1.d Additional applicable requirements are to become effective before the renewal date of this permit and are in conflict with existing permit conditions. (R307-415-7g(1)(e))

I.T.2 Additional requirements, including excess emissions requirements, become applicable to a Title IV affected source under the Acid Rain Program. Upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into this permit. (R307-415-7g(1)(b))

I.T.3 Proceedings to reopen and issue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. (R307-415-7g(2))

I.U **Inventory Requirements.**

An emission inventory shall be submitted in accordance with the procedures of R307-150, Emission Inventories. (R307-150)

I.V Title IV and Other, More Stringent Requirements

Where an applicable requirement is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, Acid Deposition Control, both provisions shall be incorporated into this permit. (R307-415-6a(1)(b))

SECTION II: SPECIAL PROVISIONS

II.A **Emission Unit(s) Permitted to Discharge Air Contaminants.**
(R307-415-4(3)(a) and R307-415-4(4))

II.A.1 **Permitted Source (Source-wide)**

II.A.2 **MSW Landfill**
Class V Sanitary Landfill with a 34.4 Mg capacity and the active landfill gas collection system, including the enclosed combustor. Opened in 1982. NESHAP A, M and AAAA; 40 CFR 62 Subpart OOO apply to this unit.

II.A.3 **Emergency Generators**
Includes Transfer Station Emergency Generator rated at 605 hp (Manufactured in 1999), Office Emergency Generator rated 235 hp (Manufactured in 1997), and Flare Emergency Generator rated at 201 hp (Manufactured in 2000), all diesel-fired. NESHAP ZZZZ applies to this unit.

II.A.4 **Storage Tanks**
Two diesel fuel storage tanks, one at 10,000 gallons and one at 8,000 gallons. No unit-specific applicable requirements

II.A.5 **Stationary Steam Clean Cleaner**
0.36 MMBtu/hr natural gas-fired steam cleaner. No unit-specific applicable requirements.

II.B **Requirements and Limitations**

The following emission limitations, standards, and operational limitations apply to the permitted facility as indicated:

II.B.1 **Conditions on permitted source (Source-wide).**

II.B.1.a **Condition:**

(a) Opacity caused by fugitive dust shall not exceed:

(1) 10% at the property boundary; and

(2) 20% on site.

(b) The permittee shall submit a fugitive dust control plan to the director in accordance with R307-309-6.

(c) Opacity requirements shall not apply when the wind speed exceeds 25 miles per hour if the permittee has implemented, and continues to implement, the accepted fugitive dust control plan in R307-309-6 and administers one or more of the following contingency measures:

(1) Pre-event watering;

(2) Hourly watering;

(3) Additional chemical stabilization;

(4) Cease or reduce fugitive dust producing operations to the extent practicable. [DAQE-AN11362001-15, R307-309-5 and R307-309-6]. [R307-309-5, R307-309-6, R307-401-8]

II.B.1.a.1 **Monitoring:**

(a) In lieu of monitoring via visible emissions observations, adherence to the most recently approved fugitive dust control plan shall be maintained in order to demonstrate that appropriate measures are being implemented to control fugitive dust;

(b) Wind speed shall be measured by an anemometer to identify periods when velocity exceeds 25 mph;

(c) Recordkeeping shall serve as monitoring.

II.B.1.a.2 **Recordkeeping:**

(a) A copy of the fugitive dust control plan shall be maintained on site;

(b) Records of measures taken to control fugitive dust shall be maintained to demonstrate adherence to the most recently approved fugitive dust control plan. Records shall be maintained in accordance with the plan;

(c) If wind speeds are measured to establish an exception from the above visible emissions limits, records of the administered contingency measures and the wind speed measurements shall be maintained;

(d) Records shall be maintained as described in Provision I.S.1 of this permit.

II.B.1.a.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.1.b **Condition:**

Visible emissions shall be no greater than 20 percent opacity unless otherwise specified. [Origin: R307-201-1]. [R307-201-1]

II.B.1.b.1 **Monitoring:**

If an affected emission unit is operated during a calendar quarter, an opacity observation of the emission unit shall be performed in the quarter that the emission unit was operated. The opacity observation can be conducted at any time during the quarter. The opacity observation shall be conducted by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9, while the emission unit is operating. If visible emissions other than steam are observed from the emission unit, an opacity determination of that emission unit shall be performed by a certified observer within 24 hours of the initial visual emission observation. The opacity determination shall be performed in accordance with 40 CFR 60, Appendix A, Method 9.

II.B.1.b.2 **Recordkeeping:**

The permittee shall keep a log which includes the location and description of the emission unit. For each quarter, the log shall include either the date of the opacity observation and if visual emission other than condensed water vapor were observed or a note that the emission unit was not operated. For each observed visual emission other than condensed water vapor, the permittee shall record: date and time of visual emissions observation, emission unit location and description, time and date of opacity determination, and percent opacity. The records required

by this provision and all data required by 40 CFR 60, Appendix A, Method 9 shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.1.b.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.1.c **Condition:**

Sulfur content of any fuel oil combusted shall be no greater than 0.85 lb/MMBtu heat input. [Origin: R307-203-1]. [R307-203-1]

II.B.1.c.1 **Monitoring:**

For each delivery of oil, the permittee shall either:

(a) Determine the fuel sulfur content expressed as lb/MMBtu in accordance with the methods of the American Society for Testing Materials (ASTM) and Equation 1;or

(b) Inspect documentation provided by the vendor that has demonstrated compliance with this provision.

Equation 1:

Fuel Sulfur Content, lb/MMBtu = [(Weight percent sulfur/100) x Density (lb/gal)] / [(gross heating value (Btu/gal)) x (1 MMBtu/1,000,000 Btu)].

II.B.1.c.2 **Recordkeeping:**

Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.1.c.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.1.d **Condition:**

The permittee shall comply with the applicable requirements for recycling and emission reduction for class I and class II refrigerants pursuant to 40 CFR 82, Subpart F - Recycling and Emissions Reduction. [Origin: 40 CFR 82.150(b)]. [40 CFR Subpart F]

II.B.1.d.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.1.d.2 **Recordkeeping:**

All records required in 40 CFR 82; Subpart F shall be maintained consistent with the requirements of Provision S.1 in Section I of this permit.

II.B.1.d.3 **Reporting:**

All reports required in 40 CFR 82; Subpart F shall be submitted as required. The permittee shall certify, in the annual compliance statement required in Section I of this permit, its compliance status with the requirements of 40 CFR 82, Subpart F. There are no additional reporting requirements except as outlined in Section I of this permit.

II.B.1.e **Condition:**

(a) Any salt applied to roads shall be at least 92% sodium chloride (NaCl), magnesium chloride ($MgCl_2$), calcium chloride ($CaCl_2$), or potassium chloride (KCl).

(b) If the permittee applies crushed slag, sand, or salt that is less than 92% NaCl, $MgCl_2$, $CaCl_2$, or KCl to roads, the permittee must demonstrate to the Board that the material applied has no PM_{10} or $PM_{2.5}$ emission than salt which is at least 92% NaCl, $MgCl_2$, $CaCl_2$, or KCl. [Origin: R307-307]. [R307-307]

II.B.1.e.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.1.e.2 **Recordkeeping:**

Records shall be maintained of the material (salt, crushed slag, or sand) applied to the roads by the permitted source.

For Salt - the quantity applied, and the percent by weight of insoluble solids in the salt.

For Sand or Crushed Slag - the quantity applied and the percent by weight of fine material which passes the number 200 sieve in a standard gradation analysis.

II.B.1.e.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.1.f **Condition:**

At all times, including periods of startup, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate any permitted plant equipment, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. [Origin: DAQE-AN113620001-15]. [40 CFR 60 Subpart A, R307-401-8(2)]

II.B.1.f.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.1.f.2 **Recordkeeping:**

Permittee shall document activities performed to assure proper operation and maintenance. Records shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.1.f.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.2 **Conditions on MSW Landfill**

II.B.2.a **Condition:**

The permittee shall comply with all applicable requirements in 40 CFR 62, Subpart OOO - Federal Plan Requirements for Municipal Solid Waste Landfills That Commenced Construction On or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 17, 2014.

(a) Control the gas collected from within the landfill through the use of control devices meeting the following requirements, except as provided in 40 CFR 60.24: [62.16714]

(1) 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 or less. The reduction efficiency or concentration in parts-per-million by volume must 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 paragraph (b) of II.B.2.a.1. The performance test is not required for boilers and process heaters with design heat input capacities equal to or greater than 44 megawatts that burn landfill gas for compliance with this subpart.

(i) 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 paragraph (d) of II.B.2.a.1.

(ii) Legacy controlled landfills or landfills in the closed landfill subcategory that have already installed control systems and completed initial or subsequent performance tests may comply with this subpart using the initial or most recent performance test conducted to comply with 40 CFR 60, subpart WWW; 40 CFR 62 Subpart GGG; or a state plan implementing 40 CFR 60 subpart Cc, is sufficient for compliance with this subpart.

(b) The collection and control system may be capped, removed, or decommissioned if the following conditions criteria are met:

(1) The landfill shall be a closed landfill as defined in 40 CFR 62.16730. A closure report shall be submitted to the EPA Administrator as provided in paragraph (c) of II.B.2.a.3;

(2) The collection and control system shall have been in operation a minimum of 15 years or the permittee demonstrates that the gas collection and control system will be unable to operate for 15 years due to declining gas flow.

(3) Following the procedures specified in paragraph (a) of II.B.2.a.1, the calculated NMOC gas produced by the landfill shall be less than 34 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.

(c) The permittee of a MSW landfill with a gas collection and control system used to comply with the provisions of 40 CFR 62.16714(b) or paragraph (a) of this condition shall comply with the provisions for the operational standards in II.B.2.g paragraphs (c) through (i) of this permit (as well as the provisions in II.B.2.g.1 paragraphs (d) through (n) of this permit).

[Origin: 40 CFR 62 Subpart OOO]. [40 CFR 62.16710, 40 CFR 62.16714, 40 CFR 62.16716]

II.B.2.a.1 **Monitoring:**

(a) After the installation and startup of a collection and control system in compliance with this condition, the permittee shall calculate the NMOC emission rate for purposes of determining when the system can be capped, removed, or decommissioned as provided in paragraph (b) of II.B.2.a, using the equation provide below: [40 CFR 62.16718(b)]

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

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, Q_{LFG}, shall be determined by measuring the total landfill gas flow rate at the common header pipe that leads to the control system using a gas flow measuring device calibrated according to the provisions of section 10 of EPA Method 2E of appendix A-1 of 40 CFR part 60.

(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 EPA Method 25 Method or EPA Method 25C (Method 18 also listed as option in WWW) is of appendix A-7 of 40 CFR part 60. The sample location on the common header pipe must be before any condensate removal or other gas refining units. The landfill permittee shall divide the NMOC concentration from EPA Method 25 or EPA Method 25C of appendix A-7 of 40 CFR part 60 by six to convert from CNMOC as carbon to CNMOC as hexane.

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

(i) Within 60 days after the date of calculating the NMOC emission rate for purposes of determining when the system can be capped or removed, the permittee shall submit the results according to paragraph (f) of II.B.2.a.3.

(b) For the performance test required in paragraph (a)(1) of II.B.2.a, Method 25, 25C (EPA Method 25C may be used at the inlet only), of Appendix A-7 of 40 CFR 60 shall be used to determine compliance with the 98 weight-percent efficiency or the 20 ppmv outlet NMOC concentration level, unless another method to demonstrate compliance has been approved by the EPA Administrator as provided by 40 CFR 62.16724(d)(2). EPA method 3, 3A, or 3C of appendix A-2 of 40 CFR 60 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), EPA method 25A should be used in place of EPA method 25. EPA Method 18 of appendix A-6 of 40 CFR part 60 may be used in conjunction with EPA Method 25A on a limited basis (compound specific, e.g., methane) or EPA Method 3C may be used to determine methane. The methane as carbon should be subtracted from the EPA Method 25A total hydrocarbon value as carbon to give NMOC concentration as carbon. The permittee shall divide the NMOC concentration as carbon by 6 to convert the CNMOC as carbon to CNMOC as hexane. The following equation shall be used to calculate efficiency: [40 CFR 62.16718(e)]

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

(1) Within 60 days after the date of completing each performance test (as defined in 40 CFR 60.8 of this chapter), the permittee shall submit the results of the performance tests, including any associated fuel analyses, according to paragraph (f) of II.B.2.a.3.

(c) The permittee shall follow the compliance provisions in II.B.2.g.1 paragraphs (d) through (h) of this permit (as well as the provisions in II.B.2.g paragraphs (c) through (i), and II.B.2.g.1 paragraphs (i) through (n) of this permit), for an MSW landfill with a gas collection and control system used to comply with the provisions of 40 CFR 62.16714(b) or paragraph (a) of II.B.2.a.

(d) The permittee shall follow the monitoring provisions in II.B.2.g.1 paragraphs (i) through (n) of this permit (as well as the provisions in II.B.2.g paragraphs (c) through (i), and II.B.2.g.1 paragraphs (d) through (h) of this permit), for an MSW landfill with a gas collection and control system used to comply with the provisions of 40 CFR 62.16714(b) or paragraph (a) of II.B.2.a.

II.B.2.a.2 **Recordkeeping:**

(a) Except as provided in 40 CFR 62.16724(d)(2), the permittee of an MSW landfill subject to the provisions of this condition shall keep for at least 5 years up to date, readily accessible, on site records of the design capacity report which triggered this condition, the current amount of solid waste in place, and the year by year waste acceptance rate. Offsite records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable. [40 CFR 62.16726(a)]

(b) Except as provided in 40 CFR 62.16724(d)(2), the permittee of a gas-controlled landfill shall keep up-to-date, readily accessible records for the life of the control system equipment of the data listed in paragraphs (b)(1) and (2) of this recordkeeping 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 the permittee subject to the provisions of this condition seeks to demonstrate compliance with 40 CFR 62.16714(b):

(i) The maximum expected gas generation flow rate as calculated in paragraph (c) of II.B.2.a.1. The permittee may use another method to determine the maximum gas generation flow rate, if the method has been approved by the EPA Administrator.

(ii) The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in 62.16728(a)(1).

(2) Where the permittee subject to the provisions of this condition seeks to demonstrate compliance with paragraph (a) of II.B.2.a 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 paragraph (a)(1) of II.B.2.a achieved by the control device.

(c) Except as provided in 40 CFR 62.16724(d)(2), a permittee of a controlled landfill subject to the provisions of this condition shall keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in paragraph (d) of II.B.2.a.1 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 paragraph (e) of II.B.2.a.3:

(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 82 degrees F (28 degrees C) below the average combustion temperature during the most recent performance test at which compliance with paragraph (a) of II.B.2.a was determined.

(2) The permittee shall keep up-to-date, readily accessible continuous records of the indication of flow to the control system and 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 paragraph (d) of II.B.2.a.1.

(3) A permittee of a landfill seeking to comply with this condition using an active collection system designed in accordance with 40 CFR 62.16714(b) shall keep records of periods when the collection system or control device is not operating.

(d) Except as provided in 40 CFR 62.16724(d)(2), the permittee 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 that matches the labeling on the plot map.

(1) The permittee shall keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under paragraph (c) of II.B.2.a.1.

(2) The permittee shall keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or non-degradable waste excluded from collection as provided in 40 CFR 62.16728(a)(3)(i) as well as any nonproductive areas excluded from collection as provided in 40 CFR 62.16728(a)(3)(ii).

(e) When complying with the provisions in II.B.2.g paragraphs (c) through (i), and II.B.2.g.1 paragraphs (d) through (n) of this permit, the permittee shall keep the records in paragraph (e)(1) of this recordkeeping section, and shall keep records according to II.B.2.g.2 paragraphs (e)(1) through (5) of this permit in lieu of 40 CFR 62.16726(e)(1) through (5).

(1) When complying with the provisions in II.B.2.g paragraphs (c) through (i), and II.B.2.g.1 paragraphs (d) through (n) of this permit, the permittee shall keep records of the date upon which the permittee started complying with the provisions in II.B.2.g paragraphs (c) through (i), and II.B.2.g.1 paragraphs (d) through (n) of this permit.

(f) Except as provided in 40 CFR 62.16724(d)(2), the permittee subject to the provisions of this condition must keep for at least 5 years up-to-date, readily accessible records of all collection and control system monitoring data for parameters measured in paragraph (d) of II.B.2.a.1.

(g) Any records required to be maintained by this subpart that are submitted electronically via the EPA's Central Data Exchange (CDX) may be maintained in electronic format.

(h) Records shall be maintained in accordance with Provision I.S.1. of this permit.

II.B.2.a.3 **Reporting:**

(a) When an MSW landfill subject to 40 CFR part 62 subpart OOO is a legacy controlled landfill, as defined in 40 CFR 62.16730, the permittee is not subject to the following reports of this subpart, provided the permittee submitted these reports under 40 CFR 60, subpart WWW; 40 CFR 62, subpart GGG; or a state plan implementing 40 CFR 60, subpart Cc on or before June 21, 2021. [40 CFR 62.16711(h)]

(1) Initial design capacity report specified in 40 CFR 62.16724(a).

(2) Initial or subsequent NMOC emission rate report specified in 40 CFR 62.16724(c).

(3) Collection and control system design plan specified in 40 CFR 62.16724(d).

(4) Initial annual report specified in 40 CFR 62.16724(h).

(5) Initial performance test report in 40 CFR 62.16724(i).

(b) The permittee who has already been required to submit a design plan under 40 CFR 62.16724(d), or under 40 CFR part 62, subpart GGG; 40 CFR part 60, subpart WWW; or a state plan implementing subpart Cc of 40 CFR part 60, shall submit a revised design plan to the EPA Administrator for approval as follows: [40 CFR 62.16724(e)]

(1) At least 90 days before expanding operations to an area not covered by the previously approved design plan.

(2) Prior to installing or expanding the gas collection system in a way that is not consistent with the design plan that was submitted to the EPA Administrator according to 40 CFR 62.16724(d).

(c) The permittee of a controlled landfill shall submit a closure report to the EPA Administrator within 30 days of ceasing waste acceptance. The EPA 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 EPA Administrator, no additional wastes may be placed into the landfill without filing a notification of modification as described under 40 CFR 60.7(a)(4).

(d) The permittee of a controlled landfill shall submit an equipment removal report to the EPA Administrator 30 days prior to removal or cessation of operation of the control equipment.

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

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

(ii) A copy of the initial performance test report demonstrating that the 15-year minimum control period has expired; unless the report of the results of the performance test has been submitted to the EPA via the EPA's CDX, or information that demonstrates that the gas collection and control system will be unable to operate for 15 years due to declining gas flows. In the equipment removal report, the process unit(s) tested, the pollutant(s) tested, and the date that such performance test was conducted may be submitted in lieu of the performance test report if the report has been previously submitted to the EPA's CDX; and

(iii) Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 34 megagrams or greater of NMOC per year, unless the NMOC emission rate reports have been submitted to the EPA via the EPA's CDX. If the NMOC emission rate reports have been previously submitted to the EPA's CDX, a statement that the NMOC emission rate reports have been submitted electronically and the dates that the reports were submitted to the EPA's CDX may be submitted in the equipment removal report in lieu of the NMOC emission rate reports; or

(2) The EPA Administrator may request such additional information as may be necessary to verify that all of the conditions for removal in paragraph (c) of this condition have been met.

(e) When complying with the operational provisions of II.B.2.g paragraphs (c) through (i), and II.B.2.g.1 paragraphs (d) through (n) of this permit, the permittee shall follow the semi-annual reporting requirements in II.B.2.g.3 paragraph (e) of this permit in lieu of 40 CFR 62.16724(h)

(f) The permittee shall submit reports electronically according to 40 CFR 62.16724(j)(1) and (2).

(g) When complying with the operational provisions of II.B.2.g paragraphs (c) through (i), and II.B.2.g.1 paragraphs (d) through (n) of this permit, the permittee shall follow the corrective action and the corresponding timeline reporting requirements in II.B.2.g.3 paragraph (f) of this permit in lieu of 40 CFR 62.16724(k)(1) and (2).

(h) When complying with the provisions in II.B.2.g paragraphs (c) through (i), and II.B.2.g.1 paragraphs (d) through (n) of this permit, the permittee shall submit the 24-hour high temperature report according to II.B.2.g.3 paragraph (g) of this permit.

(i) The permittee shall comply with the reporting requirements of the general provisions of 40 CFR 60 Subpart A, and 40 CFR 62 Subpart A as applicable.

(j) The permittee shall also comply with the reporting requirements of Section I of this permit.

II.B.2.b **Condition:**

The permittee shall meet one of the following requirements for all asbestos disposal operations at the landfill:

(a) There shall be no visible emissions to the outside air from any active waste disposal site where asbestos-containing waste material has been deposited,

(b) 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 non-asbestos-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 Director. For purposes of this paragraph, any used, spent, or other waste oil is not considered a dust suppression agent.

(c) Use an alternative emissions control method that has received prior written approval by the U.S. Environmental Protection Agency (USEPA) according to the procedures as described in 40 CFR 61.149(c)(2). [40 CFR 61.154] [40 CFR 61 Subpart M]

II.B.2.b.1 **Monitoring:**

If the permittee chooses to comply with the no visible emissions provisions of this condition, a visual opacity observation of each active asbestos disposal site shall be performed on a daily basis in accordance with 40 CFR 51 Appendix M Method 203A.

If the permittee chooses to comply with the daily cover provisions of this condition, a visual inspection of the site(s) where asbestos containing waste material is deposited shall be conducted daily to verify compliance with this condition.

II.B.2.b.2 **Recordkeeping:**

If the permittee chooses to comply with the no visible emissions provisions of this condition, a log of the visual opacity observations shall be maintained as described in Provision S.1 in Section I of this permit. All data required by 40 CFR 60, Appendix A, Method 9 or 40 CFR 51 Appendix M Method 203A shall also be maintained as described in Provision S.1 in Section I of this permit.

If the permittee chooses to comply with the daily cover provisions of this condition, results of daily visual inspections shall be recorded in a log and maintained as described in Provision S.1 in Section I of this permit.

II.B.2.b.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.2.c **Condition:**

Unless a natural barrier adequately deters access by the general public, the permittee shall comply with one of the following:

(a) The fencing and warning sign requirements of 40 CFR 61.154 (b), or

(b) 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 be covered with at least 15 centimeters (6 inches) of compacted non-asbestos-containing material. [40 CFR 61.154] [40 CFR 61 Subpart M]

II.B.2.c.1 **Monitoring:**

If the permittee chooses to comply with the fencing and warning sign provisions of this condition, a visual inspection of the property line including all entrances to the site and/or sections of the

site where asbestos containing waste material is deposited shall be conducted quarterly to verify compliance with the fencing and warning sign requirements of 40 CFR 61.154 (b)

If the permittee chooses to comply with the daily cover provisions of this condition, a visual inspection of the site(s) where asbestos containing waste material is deposited shall be conducted daily to verify compliance with this condition.

II.B.2.c.2 **Recordkeeping:**

Results of all inspections shall be recorded in a log and maintained as described in Provision S.1 in Section I of this permit.

II.B.2.c.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.2.d **Condition:**

The permittee shall maintain waste shipment records of all asbestos-containing waste material received. In addition to routine shipment-tracking information, the waste shipment records shall document instances of improperly enclosed or uncovered waste, or any asbestos-containing waste material not sealed in leak-tight containers. [40 CFR 61.154(e)]. [40 CFR 61 Subpart M]

II.B.2.d.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.2.d.2 **Recordkeeping:**

For all asbestos-containing waste material received, the permittee shall maintain waste shipment records, using a form similar to that shown in 40 CFR 61.149, Figure 4, and include the following information:

(a) The name, address, and telephone number of the waste generator. Waste generator is defined as any owner or operator of a source covered by 40 CFR 61, Subpart M whose act or process produces asbestos-containing waste material.

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

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

(d) The presence of any improperly enclosed or uncovered waste, or any asbestos-containing waste material not sealed in leak-tight containers.

(e) The date of the receipt.

All Records shall be maintained as described in Provisions I.S.1 of this permit.

II.B.2.d.3 **Reporting:**

As soon as possible and no longer than 30 days after receipt of the asbestos-containing waste material, the permittee shall send a copy of the signed waste shipment record to the waste

generator. The permittee shall report in writing to the Director, by the following working day, the presence of a significant amount (either nine (9) or more drums/barrels (35 gallon each) or of seventeen (17) or more plastic bags) of improperly enclosed or uncovered waste and submit a copy of the waste shipment record along with the report.

Upon discovering a discrepancy between the quantity of waste designated on the waste shipment records and the quantity actually received, the permittee shall attempt to reconcile the discrepancy with the waste generator. If the discrepancy is not resolved within 15 days after receiving the waste, the permittee shall immediately submit a written report to the Director describing the discrepancy and attempts to reconcile it, and submit a copy of the waste shipment record along with the report. The permittee shall retain a copy of all records and reports required by this condition for at least 5 years. All reports shall be in accordance with Provision I.S.2 of this permit.

II.B.2.e **Condition:**

The permittee shall 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. [40 CFR 61.154]. [40 CFR 61 Subpart M]

II.B.2.e.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.2.e.2 **Recordkeeping:**

Maintain, 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. All Records shall be maintained as described in Provisions I.S.1 of this permit.

II.B.2.e.3 **Reporting:**

The permittee shall notify the Director 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 Director at least 10 working days before excavation begins and in no event shall excavation begin earlier than the date specified in the original notification. The permittee shall include the following information in the notice:

(a) Scheduled starting and completion dates.

(b) Reason for disturbing the waste.

(c) 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 Director may require changes in the emission control procedures to be used.

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

All reports shall be in accordance with Provision I.S.2 of this permit.

II.B.2.f **Condition:**

Upon closure of an asbestos-containing waste disposal site, the permittee shall submit a copy of records of asbestos waste disposal locations and quantities and shall:

(a) Comply with one of the following:

(1) Either discharge no visible emissions to the outside air from an inactive asbestos-containing waste disposal site or

(2) Cover the asbestos-containing waste material with at least 15 centimeters (6 inches) of compacted non-asbestos-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, non-asbestos crushed rock may be placed on top of the final cover instead of vegetation and maintained to prevent emissions; or 40 CFR 61.151(a)(3)

(3) Cover the asbestos-containing waste material with at least 60 centimeters (2 feet) of compacted non-asbestos-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 USEPA 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 condition:

(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 x 36 cm (20" x 14") 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) 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) In lieu of complying with the requirements of paragraph (a) or (b) of this condition, the permittee may use an alternative control method that has received prior approval of the USEPA. [Origin: 40 CFR 61.151(g)]. [40 CFR 61 Subpart M]

II.B.2.f.1 **Monitoring:**

A visual inspection of each closed site where asbestos containing waste material is deposited shall be conducted quarterly to verify compliance with all the requirements of 40 CFR 61.151.

II.B.2.f.2 **Recordkeeping:**

Results of all inspections shall be recorded in a log and maintained as described in Provision S.1 in Section I of this permit.

II.B.2.f.3 **Reporting:**

(a) Notify the Director 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 Director 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 Director may require changes in the emission control procedures to be used.

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

(b) 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 40 CFR 61.154(f) have been filed with the USEPA; and

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

II.B.2.g **Condition:**

The permittee shall comply with all applicable requirements in 40 CFR 63 Subpart AAAA – National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills. The permittee shall comply with the applicable General Provisions in 40 CFR 63, Subpart A.

(a) Control system: Route all the collected gas to a control system that complies with the requirements in paragraph (a)(1) of this condition. [40 CFR 63.1959(b)(2)(iii)]

(1) 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 ppmv, dry basis as hexane at 3-percent oxygen. The reduction efficiency or ppmv 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 paragraph (b) of II.B.2.g.1. The performance test is not required for boilers and process heaters with design heat input capacities equal to or greater than 44 megawatts that burn landfill gas for compliance with 40 CFR 63 Subpart AAAA.

(i) 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 paragraphs (j) and (k) of II.B.2.g.1;

(b) The collection and control system may be capped, removed, or decommissioned if the following criteria are met: [40 CFR 63.1957(b)]

(1) The landfill is a closed landfill (as defined in 40 CFR 63.1990). A closure report shall be submitted to the Director as provided in paragraph (c) of II.B.2.g.3;

(2) The collection and control system has been in operation a minimum of 15 years or the landfill permittee demonstrates that the gas collection and control system will be unable to operate for 15 years due to declining gas flow; and

(3) Following the procedures specified in paragraph (a) of II.B.2.g.1, the calculated NMOC emission rate at 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.

(c) 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: [40 CFR 63.1958(a)]

(1) 5 years or more if active; or

(2) 2 years or more if closed or at final grade;

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

(1) A fire or increased well temperature. The permittee shall record instances when positive pressure occurs in efforts to avoid a fire. These records shall be submitted with the semi-annual reports as provided in paragraph (e) of II.B.2.g.3;

(2) Use of a geomembrane or synthetic cover. The permittee 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 Director as specified in 40 CFR 63.1981(d)(2).

(e) Operate each interior wellhead in the collection system as specified in paragraph (e)(1) or (e)(2) of this condition.

(1) Operate each interior wellhead in the collection system with a landfill gas temperature less than 62.8 degrees Celsius (145 degrees Fahrenheit).

(2) The permittee may establish a higher operating temperature value at a particular well. A higher operating value demonstration shall be submitted to the EPA Administrator for approval and shall include supporting data demonstrating that the elevated parameter neither causes fires nor significantly inhibits anaerobic decomposition by killing methanogens. The demonstration shall satisfy both criteria in order to be approved (i.e., neither causing fires nor killing methanogens is acceptable).

(f) The permittee shall operate the collection system such that: [40 CFR 63.1958(d)]

(1) The methane concentration is less than 500 parts per million (ppm) above background at the surface of the landfill. To determine if this level is exceeded, the permittee 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 permittee 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.

(2) The permittee shall:

(i) Conduct surface testing using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in paragraph (g) of II.B.2.g.1.

(ii) Conduct surface testing at all cover penetrations. Thus, the permittee shall monitor any cover penetrations that are within an area of the landfill where waste has been placed and a gas collection system is required.

(iii) Determine the latitude and longitude coordinates of each exceedance using an instrument with an accuracy of at least 4 meters. The coordinates shall be in decimal degrees with at least five decimal places.

(g) Operate the system as specified in paragraph (g)(1) of this condition:

(1) Operate the system in accordance to the condition in II.B.2.h such that all collected gases are vented to a control system designed and operated in compliance with paragraph (a) of this condition. In the event the collection or control system is not operating:

(i) 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 of the collection or control system not operating; and

(ii) Efforts to repair the collection or control system shall be initiated and completed in a manner such that downtime is kept to a minimum, and the collection and control system shall be returned to operation.

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

(i) If monitoring demonstrates that the operational requirements in paragraphs (d), (e), or (f) of this condition are not met, corrective action shall be taken as specified in paragraph (d)(3) through (6) of II.B.2.g.1 or paragraph (f) of II.B.2.g.1. If corrective actions are taken as specified in paragraphs (d) through (h) of II.B.2.g.1, the monitored exceedance is not a deviation of the operational requirements in this condition.

(j) Operate the collection and control device installed to comply with this condition in accordance with the provisions of paragraphs (a) through (i) of this condition as well as the monitoring, recordkeeping, and reporting of this condition. [40 CFR 63.1957(a)]

(k) The startup, shutdown, and malfunction (SSM) provisions of 40 CFR 63.6(e) of subpart A no longer apply to 40 CFR 63 Subpart AAAA and the SSM plan developed under 40 CFR 63.1964(a) no longer applies. The permittee shall comply with the emissions standards and the operating standards in paragraphs (a) through (i) of this condition at all times. [40 CFR 63.1964(b)]

[Origin: 40 CFR 63 Subpart AAAA]. [40 CFR 63.1957(a) and (b), 40 CFR 63.1958(a)-(g), 40 CFR 63.1959(b)(2)(ii), 40 CFR 63.1964(b), 40 CFR 60.753(c)]

II.B.2.g.1 **Monitoring:**

(a) After the installation and startup of a collection and control system in compliance with 40 CFR 63 Subpart AAAA, the permittee shall calculate the NMOC emission rate for purposes of determining when the system can be capped, removed, or decommissioned as provided in paragraph (b)(3) of II.B.2.g, using the following equation: [40 CFR 63.1959(c)]

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

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.
1.89 x 10-3 = Conversion factor.

(1) The flow rate of landfill gas, Q_{LFG}, 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 10 of EPA Method 2E of appendix A-1 of 40 CFR 60.

(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 EPA Method 25 or 25C of appendix A-7 of 40 CFR 60. The sample location on the common header pipe shall be before any condensate removal or other gas refining units. The landfill permittee shall divide the NMOC concentration from EPA Method 25 or 25C of appendix A-7 of 40 CFR 60 by six to convert from C_{NMOC} as carbon to C_{NMOC} as hexane.

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

(i) Within 60 days after the date of completing each performance test (as defined in 40 CFR 63.7), the permittee shall submit the results of the performance test, including any associated fuel analyses, according to paragraph (h) of II.B.2.g.3.

(b) For the performance test required in paragraph (a)(1) of II.B.2.g, Method 25, 25C (EPA Method 25C of appendix A-7 to 40 CFR 60 may us used at the inlet only) of appendix A shall 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 EPA Administrator as provided by 40 CFR 63.1981(d)(2). Method 3, 3A, or 3C of appendix A-7 to 40 CFR 60 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. EPA Method 18 may be used in conjunction with EPA Method 25A on a limited basis (compound specific, e.g., methane) or EPA Method 3C may be used to determine methane. The methane as carbon should be subtracted from the EPA Method 25A total hydrocarbon value as carbon to give NMOC concentration as carbon. The permittee shall divide the NMOC concentration as carbon by 6 to convert from the C_{NMOC} as carbon to C_{NMOC} as hexane. The following equation shall be used to calculate efficiency: [40 CFR 63.1959(d)]

Control Efficiency = (NMOCin - NMOCout)/(NMOCin)

Where:

NMOCin = Mass of NMOC entering control device
NMOCout = Mass of NMOC exiting control device

(c) The performance test required in paragraph (a)(1) of II.B.2.g shall be conducted under such conditions as the Director specifies to the permittee based on representative performance of the affected source for the period being tested. Representative conditions exclude periods of startup and shutdown unless specified by the Director. The permittee may not conduct performance tests during periods of malfunction. The permittee shall record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent normal operation. Upon request, the permittee shall make available to the Director such records as may be necessary to determine the conditions of performance tests. [40 CFR 63.1959(f)]

(d) Except as provided in 40 CFR 63.1981(d)(2), the specified methods in paragraphs (d)(1) through (d)(5) of this monitoring section shall be used to determine whether the gas collection system is in compliance with 40 CFR 63.1959(b)(2)(ii). [40 CFR 63.1960(a)]

(1) For the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine compliance with 40 CFR 63.1959(b)(2)(ii)(C)(1), one of the following equations shall be used. The permittee may use another method to determine the maximum gas generation flow rate, if the method has been approved by the EPA Administrator. The methane generation rate constant (k) and methane generation potential (Lo) 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 Director. If k has been determined as specified in 40 CFR 63.1959(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:

$Q_m = 2L_o R (e^{-kc} – e^{-kt})$

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, per year.
t = Age of the landfill at equipment installation plus the time the permittee 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 = O and $e^{-kc} = 1$).
2 = Constant.

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

$Q_m =$ Sum $(2 k L_o M_i (e^{-kti}))$ of i through n

Where:

Q_m = Maximum expected gas generation flow rate, cubic meters per year.
k = Methane generation rate constant, per year.
L_o = Methane generation potential, cubic meters per megagram solid waste.
M_i = Mass of solid waste in the ith section, megagrams.
t_i = Age of the ith 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 (d)(1)(i) or (ii) of this monitoring 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 (d)(1)(i) or (ii) of this monitoring section, 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.

(2) For the purposes of determining sufficient density of gas collectors for compliance with 40 CFR 63.1959(b)(2)(ii)(B)(2), the permittee shall design a system of vertical wells, horizontal collectors, or other collection devices, satisfactory to the Director, capable of controlling and extracting gas from all portions of the landfill sufficient to meet all operational and performance standards.

(3) For the purpose of demonstrating whether the gas collection system flow rate is sufficient to determine compliance with 40 CFR 63.1959(b)(2)(ii)(B)(3), the permittee shall measure gauge pressure in the gas collection header applied to each individual well, monthly. 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 EPA Administrator for approval. If a positive pressure exists, follow the procedures as specified in 40 CFR 60.755(a)(3), except:

(i) If a positive pressure exists, action shall be initiated to correct the exceedance within 5 days, except for the three conditions allowed under paragraph (d) of II.B.2.g.

(A) If negative pressure cannot be achieved without excess air infiltration within 15 days of the first measurement of positive pressure, the permittee shall conduct a root cause analysis and correct the exceedance as soon as practicable, but no later than 60 days after positive pressure was first measured. The permittee shall keep records according to paragraph (e)(3) of II.B.2.g.2.

(B) If corrective actions cannot be fully implemented within 60 days following the positive pressure measurement for which the root cause analysis was required, the permittee shall also conduct a corrective action analysis and develop an implementation schedule to complete the corrective action(s) as soon as practicable, but no more than 120 days following the positive pressure measurement. The permittee shall submit the items listed in paragraph (e)(7) of II.B.2.g.3 as part of the next semi-annual report. The permittee shall keep records according to paragraph (e)(4) of II.B.2.g.2.

(C) If corrective action is expected to take longer than 120 days to complete after the initial exceedance, the permittee shall submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the Director, according to paragraph (f) of II.B.2.g.3. The permittee shall keep records according to paragraph (e)(5) of II.B.2.g.2.

(4) Where a permittee subject to the provisions of 40 CFR 63 Subpart AAAA seeks to demonstrate compliance with the temperature and nitrogen or oxygen operational standards in introductory paragraph (e) of II.B.2.g, for the purpose of identifying whether excess air infiltration into the landfill is occurring, the permittee shall follow the procedures as specified in 40 CFR 60.753(c)(5), except:

(i) Once the permittee subject to the provisions of 40 CFR 63 Subpart AAAA seeks to demonstrate compliance with the operational standard for temperature in paragraph (e)(1) of II.B.2.g, the permittee shall monitor each well monthly for temperature for the purpose of identifying whether excess air infiltration exists. If a well exceeds the operating parameter for temperature as provided in paragraph (e)(1) of II.B.2.g, action shall be initiated to correct the exceedance within 5 days. Any attempted corrective measure shall not cause exceedances of other operational or performance standards.

(A) If a landfill gas temperature less than or equal to 62.8 degrees Celsius (145 degrees Fahrenheit) cannot be achieved within 15 days of the first measurement of landfill gas temperature greater than 62.8 degrees Celsius (145 degrees Fahrenheit), the permittee shall conduct a root cause analysis and correct the exceedance as soon as practicable, but no later than 60 days after a landfill gas temperature greater than 62.8 degrees Celsius (145 degrees Fahrenheit) was first measured. The permittee shall keep records according to paragraph (e)(3) of II.B.2.g.2.

(B) If corrective actions cannot be fully implemented within 60 days following the temperature measurement for which the root cause analysis was required, the permittee shall also conduct a corrective action analysis and develop an implementation schedule to complete the corrective action(s) as soon as practicable, but no more than 120 days following the measurement of landfill gas

temperature greater than 62.8 degrees Celsius (145 degrees Fahrenheit). The permittee shall submit the items listed in paragraph (e)(7) of II.B.2.g.3 as part of the next semi-annual report. The permittee shall keep records according paragraph (e)(4) of II.B.2.g.2.

(C) If corrective action is expected to take longer than 120 days to complete after the initial exceedance, the permittee shall submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the Director, according to paragraphs (e)(7) and (g) of II.B.2.g.3. The permittee shall keep records according to paragraph (e)(5) of II.B.2.g.2.

(D) If a landfill gas temperature measured at either the wellhead or at any point in the well is greater than or equal to 76.7 degrees Celsius (170 degrees Fahrenheit) and the carbon monoxide concentration measured, according to the procedures in paragraph (i)(5)(vi) of this monitoring section is greater than or equal to 1,000 ppmv the corrective action(s) for the wellhead temperature standard (62.8 degrees Celsius or 145 degrees Fahrenheit) must be completed within 15 days.

(5) A permittee seeking to demonstrate compliance with 40 CFR 63.1959(b)(2)(ii)(B)(4) through the use of a collection system not conforming to the specifications provided in 40 CFR 63.1962 shall provide information satisfactory to the EPA Administrator as specified in 40 CFR 63.1981(d)(3) demonstrating that off-site migration is being controlled.

(e) For purposes of compliance with paragraph (c) of II.B.2.g, a permittee of a controlled landfill shall place each well or design component as specified in the approved design plan as provided in 40 CFR 63.1981(d). 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: [40 CFR 63.1960(b)]

(1) 5 years or more if active; or

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

(f) The following procedures shall be used for compliance with the surface methane operational standard as provided in paragraph (f)(1) of II.B.2.g. [40 CFR 63.1960(c)]

(1) After installation of the collection system, the permittee 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 (g) of this monitoring 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 (SEM) shall be performed in accordance with section 8.3.1 of Method 21 of 40 CFR 60 Appendix A-7, 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 (f)(4)(i)

through (v) of this monitoring section shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of paragraph (f) of II.B.2.g.

(i) The location of each monitored exceedance shall be marked and the location and concentration recorded. The location shall be recorded using an instrument with an accuracy of at least 4 meters. The coordinates shall be in decimal degrees with at least five decimal places.

(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 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 (f)(4)(v) of this monitoring section shall be taken, and no further monitoring of that location is required until the action specified in paragraph (f)(4)(v) of this monitoring section 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 (f)(4)(ii) or (iii) of this monitoring 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 (f)(4)(iii) or (v) of this monitoring section 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 EPA Administrator for approval.

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

(g) A permittee seeking to comply with the provisions in paragraph (f) of this monitoring section shall comply with the following instrumentation specifications and procedures for surface emission monitoring devices: [40 CFR 63.1960(d)]

(1) The portable analyzer shall meet the instrument specifications provided in section 6 of EPA Method 21 of 40 CFR 60 Appendix A, except that "methane" shall replace all references to “VOC”.

(2) The calibration gas shall be methane, diluted to a nominal concentration of 500 parts per million in air.

(3) To meet the performance evaluation requirements in section 8.1 of EPA Method 21 of 40 CFR 60 appendix A, the instrument evaluation procedures of section 8.1 of EPA Method 21 of 40 CFR 60 appendix A shall be used.

(4) The calibration procedures provided in sections 8 and 10 of EPA Method 21 of 40 CFR 60 appendix A shall be followed immediately before commencing a surface monitoring survey.

(h) Once the permittee subject to the provisions of 40 CFR 63 Subpart AAAA seeks to demonstrate compliance with the operational standard in paragraph (g)(1) of II.B.2.g, the provisions of 40 CFR 63 Subpart AAAA apply at all times, including periods of SSM. During periods of SSM, the permittee shall comply with the work practice requirement specified in paragraph (g) of II.B.2.g in lieu of the compliance provisions in paragraphs (d) through (h) of this monitoring section. [40 CFR 63.1960(e)(2)]

(i) A permittee seeking to comply with 40 CFR 63.1959(b)(2)(ii)(B) 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: [40 CFR 63.1961(a)]

(1) Measure the gauge pressure in the gas collection header on a monthly basis as provided in (d)(3) of this monitoring section; and

(2) Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as follows:

(i) The nitrogen level must be determined using EPA Method 3C of appendix A-2 to part 60 of this chapter, unless an alternative test method is established as allowed by 40 CFR 63.1981(d)(2).

(ii) Unless an alternative test method is established as allowed by 40 CFR 63.1981(d)(2), the oxygen level must be determined by an oxygen meter using EPA Method 3A or 3C of appendix A-2 to part 60 of this chapter or ASTM D6522-11 (incorporated by reference, see 40 CFR 63.14). Determine the oxygen level by an oxygen meter using EPA Method 3A or 3C of appendix A-2 to part 60 or ASTM D6522-11 (if sample location is prior to combustion) except that:

(A) The span must be set between 10- and 12-percent oxygen;

(B) A data recorder is not required;

(C) Only two calibration gases are required, a zero and span;

(D) A calibration error check is not required; and

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

(iii) A portable gas composition analyzer may be used to monitor the oxygen levels provided:

(A) The analyzer is calibrated; and

(B) The analyzer meets all quality assurance and quality control requirements for EPA Method 3A of appendix A-2 to part 60 of this chapter or ASTM D6522-11 (incorporated by reference, see 40 CFR 63.14).

(3) Where a permittee subject to the provisions of 40 CFR 63 Subpart AAAA seeks to demonstrate compliance with the operational standard for temperature in paragraph (e)(1) of II.B.2.g, monitor temperature of the landfill gas on a monthly basis as provided in paragraph (d)(4) of this monitoring section. The temperature measuring device shall be calibrated annually using the procedure in Section 10.3 of EPA Method 2 of appendix A-1 to part 60 of this chapter. Keep records specified in paragraph (e) of II.B.2.g.2.

(4) Where a permittee subject to the provisions of 40 CFR 63 Subpart AAAA seeks to demonstrate compliance with the operational standard for temperature in paragraph (e)(1) of II.B.2.g, unless a higher operating temperature value has been approved by the EPA Administrator under 40 CFR 63 Subpart AAAA or under 40 CFR part 60, subpart WWW; 40 CFR part 60, subpart XXX; or a federal plan or EPA-approved and effective state plan or tribal plan that implements either 40 CFR part 60, subpart Cc or 40 CFR part 60, subpart Cf, the permittee shall initiate enhanced monitoring at each well with a measurement of landfill gas temperature greater than 62.8 degrees Celsius (145 degrees Fahrenheit) as follows:

(i) Visual observations for subsurface oxidation events (smoke, smoldering ash, damage to well) within the radius of influence of the well.

(ii) Monitor oxygen concentration as provided in paragraph (i)(2) of this monitoring section;

(iii) Monitor temperature of the landfill gas at the wellhead as provided in paragraph (i)(3) of this monitoring section.

(iv) Monitor temperature of the landfill gas every 10 vertical feet of the well as provided in paragraph (i)(5) of this monitoring section.

(v) Monitor the methane concentration with a methane meter using EPA Method 3C of appendix A-6 to part 60, EPA Method 18 of appendix A-6 to part 60 of this chapter, or a portable gas composition analyzer to monitor the methane levels provided that the analyzer is calibrated and the analyzer meets all quality assurance and quality control requirements for EPA Method 3C or EPA Method 18.

(vi) Monitor and determine carbon monoxide concentrations, as follows:

(A) Collect the sample from the wellhead sampling port in a passivated canister or multi-layer foil gas sampling bag (such as the Cali-5-Bond Bag) and analyze that sample using EPA Method 10 of appendix A-4 to part 60 of this chapter, or an equivalent method with a detection limit of at least 100 ppmv of carbon monoxide in high concentrations of methane; or

(B) Collect and analyze the sample from the wellhead using EPA Method 10 of appendix A-4 to part 60 to measure carbon monoxide concentrations.

(C) When sampling directly from the wellhead, the permittee shall sample for 5 minutes plus twice the response time of the analyzer. These values must be recorded. The five 1-minute averages are then averaged to give the permittee the carbon monoxide reading at the wellhead.

(D) When collecting samples in a passivated canister or multi-layer foil sampling bag, the permittee shall sample for the period of time needed to assure that enough sample is collected to provide five (5) consecutive, 1-minute samples

during the analysis of the canister or bag contents, but no less than 5 minutes plus twice the response time of the analyzer. The five (5) consecutive, 1-minute averages are then averaged together to give the permittee a carbon monoxide value from the wellhead.

(vii) The enhanced monitoring in this paragraph (i)(4) shall begin 7 calendar days after the first measurement of landfill gas temperature greater than 62.8 degrees Celsius (145 degrees Fahrenheit); and

(viii) The enhanced monitoring in this paragraph (i)(4) shall be conducted on a weekly basis. If four consecutive weekly carbon monoxide readings are under 100 ppmv, then enhanced monitoring may be decreased to monthly. However, if carbon monoxide readings exceed 100 ppmv again, the landfill shall return to weekly monitoring.

(ix) The enhanced monitoring in this paragraph (i)(4) can be stopped once a higher operating value is approved, at which time the monitoring provisions issued with the higher operating value should be followed, or once the measurement of landfill gas temperature at the wellhead is less than or equal to 62.8 degrees Celsius (145 degrees Fahrenheit).

(5) For each wellhead with a measurement of landfill gas temperature greater than or equal to 73.9 degrees Celsius (165 degrees Fahrenheit), annually monitor temperature of the landfill gas every 10 vertical feet of the well. This temperature can be monitored either with a removable thermometer, or using temporary or permanent thermocouples installed in the well.

(j) A permittee seeking to comply with paragraph (a) of II.B.2.g using an enclosed combustor shall calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment: [40 CFR 63.1961(b)]

(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.

(2) A device that records flow to or bypass of the control device (if applicable). The permittee shall:

(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; and

(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.

(k) A permittee seeking to install a collection system that does not meet the specifications in 40 CFR 63.1962 or seeking to monitor alternative parameters to those required by 40 CFR 63.1958 through 40 CFR 63.1961 shall provide information satisfactory to the EPA Administrator as provided in 40 CFR 63.1981(d)(2) and (3) describing the design and operation of the collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The EPA Administrator may specify additional appropriate monitoring procedures. [40 CFR 63.1961(e)]

(l) A permittee seeking to demonstrate compliance with the 500-ppm surface methane operational standard in paragraph (f) of II.B.2.g shall monitor surface concentrations of methane according to the procedures in paragraph (f) of this monitoring section and the instrument specifications in paragraph (g) of this monitoring section. If the permittee is

complying with the 500-ppm surface methane operational standard in paragraph (f)(2) of II.B.2.g, for location, the permittee shall determine the latitude and longitude coordinates of each exceedance using an instrument with an accuracy of at least 4 meters and the coordinates shall be in decimal degrees with at least five decimal places. In the semi-annual report in paragraph (e) of II.B.2.g.3, the permittee shall report the location of each exceedance of the 500-ppm methane concentration as provided in paragraph (f) of II.B.2.g and the concentration recorded at each location for which an exceedance was recorded in the previous month. 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.

(m) The monitoring requirements of paragraphs (i) and (j) of this monitoring section apply at all times the affected source is operating, except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. The permittee required to complete monitoring system repairs in response to monitoring system malfunctions and to return the monitoring system to operation as expeditiously as practicable. Where a permittee subject to the provisions of 40 CFR 63 Subpart AAAA seeks to demonstrate compliance with the temperature and nitrogen or oxygen operational standards in introductory paragraphs (e)(1), (f)(2), and (g)(1) of II.B.2.g, the standards apply at all times. [40 CFR 63.1961(h)]

(n) Averages shall be calculated according to paragraph (b)(2)(i) of II.B.2.g.2 for average combustion temperature and paragraph (c)(1)(i) of II.B.2.g.2 for 3-hour average combustion temperature for enclosed combustors, except that the data collected during the events listed below are not to be included in any average computed under this condition. [40 CFR 63.1975]

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

II.B.2.g.2 **Recordkeeping:**

(a) Except as provided in 40 CFR 63.1981(d)(2), a permittee of an MSW landfill subject to the provisions of 40 CFR 63.1959(b)(2)(ii) and paragraph (c) of II.B.2.g shall keep for at least 5 years up to date, readily accessible, on site records of the design capacity report which triggered 40 CFR 63.1959(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. [40 CFR 63.1983(a)]

(b) Except as provided in 40 CFR 63.1981(d)(2), a permittee 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) and (2) of this recordkeeping 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 a permittee subject to the provisions of 40 CFR 63 Subpart AAAA seeks to demonstrate compliance with 40 CFR 63.1959(b)(2)(ii):

(i) The maximum expected gas generation flow rate as calculated in paragraph (d)(1) of II.B.2.g.1.

(ii) The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in 40 CFR 63.1962(a)(1) and (2).

(2) Where a permittee subject to the provisions of 40 CFR 63 Subpart AAAA seeks to demonstrate compliance with paragraph (a) of II.B.2.g 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 paragraph (a)(1) of II.B.2.g achieved by the control device.

(c) Except as provided in paragraph 40 CFR 63.1981(d)(2), a permittee of a controlled landfill subject to the provisions of this condition shall keep for 5 years up to date, readily accessible continuous records of the equipment operating parameters specified to be monitored in paragraphs (i) through (n) of II.B.2.g.1 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 paragraph (e) of II.B.2.g.3:

(i) For enclosed combustors except for boilers and process heaters with design heat input capacity of 44 megawatts (150 million Btu per hour) or greater, all 3-hour periods of operation during which the average temperature was more than 28 degrees Celsius (82 degrees Fahrenheit) below the average combustion temperature during the most recent performance test at which compliance with paragraph (a)(1) of II.B.2.g was determined.

(2) The permittee shall keep up-to-date, readily accessible continuous records of the indication of flow to the control system 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 paragraph (j)(2)(ii) of II.B.2.g.1.

(3) A permittee seeking to comply with 40 CFR 63.1959(b)(2) using an active collection system designed in accordance with 40 CFR 63.1959(b)(2)(ii) shall keep records of periods when the collection system or control device is not operating.

(4) Where a permittee subject to the provisions of 40 CFR 63 Subpart AAAA seeks to demonstrate compliance with the operational standard in paragraph (g)(1) of II.B.2.g, the date, time, and duration of each startup and/or shutdown period, recording the periods when the affected source was subject to the standard applicable to startup and shutdown.

(5) Where a permittee subject to the provisions of 40 CFR 63 Subpart AAAA seeks to demonstrate compliance with the operational standard in paragraph (f)(1) of II.B.2.g, in the event that an affected unit fails to meet an applicable standard, record the information below in this paragraph:

(i) For each failure record the date, time and duration of each failure and the cause of such events (including unknown cause, if applicable).

(ii) For each failure to meet an applicable standard; record and retain a list of the affected sources or equipment.

(iii) Record actions taken to minimize emissions in accordance with the general duty of Condition II.B.2.h and any corrective actions taken to return the affected unit to its normal or usual manner of operation.

(6) Beginning no later than September 27, 2021, in lieu of the requirements specified in 40 CFR 63.8(d)(3) of subpart A the permittee shall keep the written procedures required by 40 CFR 63.8(d)(2) on record for the life of the affected source or until the affected source is no longer subject to the provisions of this part, to be made available for inspection, upon request, by the Director. If the performance evaluation plan is revised, the permittee shall keep previous (i.e., superseded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by the Director, for a period of 5 years after each revision to the plan. The program of corrective action should be included in the plan required under 40 CFR 63.8(d)(2).

(d) Except as provided 40 CFR 63.1981(d)(2), the permittee 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) The permittee shall keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under paragraph (e) of II.B.2.g.

(2) The permittee shall keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos containing or non-degradable waste excluded from collection as provided in 40 CFR 63.1962(a)(3)(i) as well as any non-productive areas excluded from collection as provided in 40 CFR 63.1962(a)(3)(ii).

(e) Except as provided in 40 CFR 63.1981(d)(2), the permittee shall keep for at least 5 years up-to-date, readily accessible records of the following: [40 CFR 63.1983(e)]

(1) All collection and control system exceedances of the operational standards in paragraphs (c) through (i) of II.B.2.g, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance.

(2) A permittee subject to the control provisions of 40 CFR 63 Subpart AAAA shall keep records of each wellhead temperature monitoring value of greater than 55 degrees Celsius (131 degrees Fahrenheit), each wellhead nitrogen level at or above 20 percent, and each wellhead oxygen level at or above 5 percent, except:

(i) When a permittee subject to the provisions of 40 CFR 63 Subpart AAAA seeks to demonstrate compliance with the compliance provisions for wellhead temperature in paragraph (e)(1) of II.B.2.g, the records of each wellhead temperature monitoring value of 62.8 degrees Celsius (145 degrees Fahrenheit) or above instead of values greater than 55 degrees Celsius (131 degrees Fahrenheit).

(ii) A permittee required to conduct the enhanced monitoring provisions in paragraph (i)(6) of II.B.2.g.1, shall also keep records of all enhanced monitoring activities.

(iii) A permittee required to submit the 24-hour high temperature report in paragraph (g) of II.B.2.g.3, shall also keep a record of the email transmission.

(3) For any root cause analysis for which corrective actions are required in paragraph (d)(3)(i)(A) or (d)(4)(i)(A) of II.B.2.g.1, keep a record of the root cause analysis conducted, including a description of the recommended corrective action(s) taken, and the date(s) the corrective action(s) were completed.

(4) For any root cause analysis for which corrective actions are required in paragraph (d)(3)(i)(B) or (d)(4)(i)(B) of II.B.2.g.1, keep a record of the root cause analysis conducted, the corrective action analysis, the date for corrective action(s) already completed following the positive pressure reading or high temperature reading, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.

(5) For any root cause analysis for which corrective actions are required in paragraph (d)(3)(i)(C) or (d)(4)(i)(C) of II.B.2.g.1, keep a record of the root cause analysis conducted, the corrective action analysis, the date for corrective action(s) already completed following the positive pressure reading or high temperature reading, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates, and a copy of any comments or final approval on the corrective action analysis or schedule from the Director.

(f) Except as provided in 40 CFR 63.1981(d)(2), a permittee subject to the provisions of 40 CFR 63 Subpart AAAA shall keep for at least 5 years up-to-date, readily accessible records of all collection and control system monitoring data for parameters measured in paragraphs (i)(1) through (5) of II.B.2.g.1. [40 CFR 63.1983(g)]

(g) Where a permittee subject to the provisions of 40 CFR 63 Subpart AAAA seeks to demonstrate compliance with the operational standard for temperature in paragraph (e)(1) of II.B.2.g, the permittee shall keep the following records:

(1) Records of the landfill gas temperature on a monthly basis as monitored in paragraph (d)(4) of II.B.2.g.1.

(2) Records of enhanced monitoring data at each well with a measurement of landfill gas temperature greater than 62.8 degrees Celsius (145 degrees Fahrenheit) as gathered in paragraphs (i)(4) and (i)(5) of II.B.2.g.1.

(h) Any records required to be maintained by 40 CFR 63 Subpart AAAA that are submitted electronically via the EPA's CEDRI may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to a delegated air agency or the EPA as part of an on-site compliance evaluation. [40 CFR 63.1983(h)(2)(i)]

(i) Records shall be maintained in accordance with Provision I.S.1. of this permit.

II.B.2.g.3 **Reporting:**

Except as provided in paragraph 40 CFR 63.1981(d)(2):

(a) The permittee shall submit the reports specified in this Reporting section and the reports specified in Table 1 to 40 CFR 63 Subpart AAAA. If the permittee previously submitted a design capacity report, amended design capacity report, initial NMOC emission rate report, initial or revised collection and control system design plan, closure report, equipment removal report, or initial performance test under 40 CFR part 60, subpart WWW; 40 CFR part 60, subpart XXX; or a federal plan or EPA-approved and effective state plan or tribal plan that implements either 40 CFR part 60, subpart Cc or 40 CFR part 60, subpart Cf, then

that submission constitutes compliance with the design capacity report in 40 CFR 63.1981(a), the amended design capacity report in 40 CFR 63.1981(b), the initial NMOC emission rate report in 40 CFR 63.1981(c), the initial collection and control system design plan in 40 CFR 63.1981(d), the revised design plan in paragraph (b) of this reporting section, the closure report in paragraph (c) of this reporting section, the equipment removal report in paragraph (d) of this reporting section, and the initial performance test report in 40 CFR 63.1981(i). The permittee does not need to re-submit the report(s). However, the permittee shall include a statement certifying prior submission of the respective report(s) and the date of submittal in the first semi-annual report required in this section. [40 CFR 63.1981]

(b) Beginning no later than September 27, 2021, a permittee who has already been required to submit a design plan under 40 CFR 63.1981(d) shall submit a revised design plan to the Director for approval as follows: [40 CFR 63.1981(e)]

(1) At least 90 days before expanding operations to an area not covered by the previously approved design plan.

(2) Prior to installing or expanding the gas collection system in a way that is not consistent with the design plan that was submitted to the Director according to 40 CFR 63.1981(d).

(c) A permittee of a controlled landfill shall submit a closure report to the Director within 30 days of waste acceptance cessation. The Director 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 Director, no additional wastes may be placed into the landfill without filing a notification of modification as described under 40 CFR 63.9(b) of subpart A. [40 CFR 63.1981(f)]

(d) A permittee of a controlled landfill shall submit an equipment removal report as provided in 40 CFR 60.757(e). The permittee shall submit an equipment removal report to the Director 30 days prior to removal or cessation of operation of the control equipment. [40 CFR 63.1981(g)]

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

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

(ii) A copy of the initial performance test report demonstrating that the 15-year minimum control period has expired, or information that demonstrates that the gas collection and control system will be unable to operate for 15 years due to declining gas flows. In the equipment removal report, the process unit(s) tested, the pollutant(s) tested, and the date that such performance test was conducted may be submitted in lieu of the performance test report if the report has been previously submitted to the EPA's CDX; and

(iii) Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 50 Mg or greater of NMOC per year. If the NMOC emission rate reports have been previously submitted to the EPA's CDX, a statement that the NMOC emission rate reports have been submitted electronically and the dates that the reports were submitted to the EPA's CDX may be submitted in the equipment removal report in lieu of the NMOC emission rate reports.

(2) The Director may request such additional information as may be necessary to verify that all of the conditions for removal in paragraph (d) of this reporting section have been met.

(e) A permittee of a landfill seeking to comply with 40 CFR 63.1959(b)(2) using an active collection system designed in accordance with 40 CFR 63.1959(b)(2)(ii) shall submit to the Director semi-annual reports. The permittee shall submit the report, following the procedure specified in paragraph (h) of this reporting section. For enclosed combustion devices and flares, reportable exceedances are defined under paragraph (c) of II.B.2.g.2. The semi-annual reports shall contain the information in paragraphs (e)(1) through (8) of this reporting section. [40 CFR 63.1981(h)]

(1) Number of times that applicable parameters monitored under paragraphs (d), (e), and (f) of II.B.2.g were exceeded and when the gas collection and control system was not operating under paragraph (g) of II.B.2.g, including periods of SSM. For each instance, report the date, time, and duration of each exceedance.

(i) Where a permittee subject to the provisions of 40 CFR 63 Subpart AAAA seeks to demonstrate compliance with the operational standard for temperature in paragraph (e)(1) of II.B.2.g, provide a statement of the wellhead operational standard for temperature and oxygen the permittee is complying with for the period covered by the report. Indicate the number of times each of those parameters monitored under paragraph (i)(3) of II.B.2.g.1 were exceeded. For each instance, report the date, time, and duration of each exceedance.

(2) Description and duration of all periods when the gas stream is diverted from the control device or treatment system through a bypass line or the indication of bypass flow as specified in paragraphs (i) through (n) of II.B.2.g.1.

(3) Description and duration of all periods when the control device or treatment system was not operating and length of time the control device or treatment system was not operating.

(4) All periods when the collection system was not operating.

(5) The location of each exceedance of the 500 parts per million methane concentration as provided in paragraph (f) of II.B.2.g and the concentration recorded at each location for which an exceedance was recorded in the previous month. For location, the permittee shall record the latitude and longitude coordinates of each exceedance using an instrument with an accuracy of at least 4 meters. The coordinates shall be in decimal degrees with at least five decimal places.

(6) The date of installation and the location of each well or collection system expansion added pursuant to paragraph (d)(3) and (4), (e), and (f)(4) of II.B.2.g.1.

(7) For any corrective action analysis for which corrective actions are required in paragraphs (d)(3)(i) or (d)(5) of II.B.2.g.1 and that take more than 60 days to correct the exceedance, the root cause analysis conducted, including a description of the recommended corrective action(s), the date for corrective action(s) already completed following the positive pressure or high temperature reading, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.

(8) A permittee required to conduct enhanced monitoring in paragraphs (i)(5) and (6) of II.B.2.g.1 shall include the results of all monitoring activities conducted during the period.

(i) For each monitoring point, report the date, time, and well identifier along with the value and units of measure for oxygen, temperature (wellhead and downwell), methane, and carbon monoxide.

(ii) Include a summary trend analysis for each well subject to the enhanced monitoring requirements to chart the weekly readings over time for oxygen, wellhead temperature, methane, and weekly or monthly readings over time, as applicable for carbon monoxide.

(iii) Include the date, time, staff person name, and description of findings for each visual observation for subsurface oxidation event.

(f) The permittee shall submit information regarding corrective actions according to paragraphs (f)(1) and (2) of this reporting section. [40 CFR 63.1981(j)]

(1) For corrective action that is required according to paragraphs (d)(3) and (d)(4) of II.B.2.g.1 and is not completed within 60 days after the initial exceedance, the permittee shall submit a notification to the Director as soon as practicable but no later than 75 days after the first measurement of positive pressure or temperature exceedance.

(2) For corrective action that is required according to paragraphs (d)(3) and (d)(4) of II.B.2.g.1 and is expected to take longer than 120 days after the initial exceedance to complete, the permittee shall submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the Director as soon as practicable but no later than 75 days after the first measurement of positive pressure or temperature monitoring value of 62.8 degrees Celsius (145 degrees Fahrenheit) or above unless a higher operating temperature value has been approved by the EPA Administrator for the well under this subpart or under 40 CFR 60, subpart WWW; 40 CFR part 60, subpart XXX; or a Federal plan or EPA approved and effective state plan that implements either 40 CFR part 60, subpart Cc or 40 CFR part 60, subpart Cf. The EPA Administrator must approve the plan for corrective action and the corresponding timeline.

(g) Where a permittee subject to the provisions of 40 CFR 63 Subpart AAAA seeks to demonstrate compliance with the operational standard for temperature in paragraph (e)(1) of II.B.2.g and a landfill gas temperature measured at either the wellhead or at any point in the well is greater than or equal to 76.7 degrees Celsius (170 degrees Fahrenheit) and the carbon monoxide concentration measured is greater than or equal to 1,000 ppmv, the permittee shall report the date, time, well identifier, temperature and carbon monoxide reading via email to the Director within 24 hours of the measurement unless a higher operating temperature value has been approved by the EPA Administrator for the well under 40 CFR 63 Subpart AAAA or under 40 CFR part 60, subpart WWW; 40 CFR part 60, subpart XXX; or a Federal plan or EPA approved and effective state plan or tribal plan that implements either 40 CFR part 60, subpart Cc or 40 CFR part 60, subpart Cf. [40 CFR 63.1981(k)]

(h) Beginning no later than September 27, 2021, the permittee shall submit reports electronically to EPA according to 40 CFR 63.1981(l), (m), and (n).

(i) The permittee shall comply with the reporting requirements of the general provisions of 40 CFR 63 as applicable.

(j) The permittee shall also comply with the reporting requirements of Section I of this permit.

II.B.2.h **Condition:**

At all times, including periods of startup, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate any permitted plant equipment, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. [40 CFR 63 Subpart AAAA]. [40 CFR 63.1955(c)]

II.B.2.h.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.2.h.2 **Recordkeeping:**

The permittee shall document activities performed to assure proper operation and maintenance. Records shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.2.h.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.3 **Conditions on Emergency Generators**

II.B.3.a **Condition:**

Visible emissions shall be no greater than 20 percent opacity. [DAQE-AN113620001-15]. [R307-401-8]

II.B.3.a.1 **Monitoring:**

If an affected emission unit is operated during a calendar quarter, an opacity observation of the emission unit shall be performed in the quarter that the emission unit was operated. The opacity observation can be conducted at any time during the quarter. The opacity observation shall be conducted by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9, while the emission unit is operating. If visible emissions other than steam are observed from the emission unit, an opacity determination of that emission unit shall be performed by a certified observer within 24 hours of the initial visual emission observation. The opacity determination shall be performed in accordance with 40 CFR 60, Appendix A, Method 9.

II.B.3.a.2 **Recordkeeping:**

The permittee shall keep a log which includes the location and description of the emission unit. For each quarter, the log shall include either the date of the opacity observation and if visual emission other tan condensed water vapor were observed or a note that the emission unit was not operated. For each observed visual emission other than condensed water vapor, the permittee shall record: the date and time of visual emissions observation, emission unit location and description, time and date of opacity determination, and percent opacity. The records required by this provision and all data required by 40 CFR 60, Appendix A, Method 9 shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.3.a.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.3.b **Condition:**

At all times the permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.6595(a)(1), 40 CFR 63.6605(b)]. [40 CFR 63 Subpart ZZZZ]

II.B.3.b.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.3.b.2 **Recordkeeping:**

The permittee shall keep the records described in 40 CFR 63.6655(a)(1)-(5) as applicable. [40 CFR 63.6655(a)]

The permittee shall document activities performed to assure proper operation and maintenance. Records shall be maintained in accordance with 40 CFR 63.6660 and Provision I.S.1 of this permit.

II.B.3.b.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.3.c **Condition:**

The permittee shall comply with the following operating limitations at all times for each emergency affected emission unit:

(a) The permittee shall operate the affected emission unit according to the requirements in 40 CFR 63.6640(f)(1) through (4). Any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, paragraphs 40 CFR 63.6640(f)(1) through (4), is prohibited. If the engine is not operated in accordance with paragraphs 40 CFR 63.6640(f)(1) through (4), it will not be considered an emergency engine and shall meet all requirements for non-emergency engines.

(b) The permittee shall meet the following requirements at all times, except during periods of startup:

(1) Change oil and filter every 500 hours of operation or annually, whichever comes first, except as otherwise provided under 2(d) of this permit condition;

(2) Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first;

(3). Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary;

(4) The permittee may opt to perform oil analysis procedures as outlined in 40 CFR 63 .6625(i) or (j) in order to extend the specified oil change requirement required under 2(a) of this permit condition.

(c) During periods of startup, the permittee shall minimize the engine's time spent at idle and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.

(d) The permittee shall comply with the applicable general provisions in 40 CFR 63.1-15 as identified in Table 8 of 40 CFR 63 Subpart ZZZZ.

[40 CFR 63.6595(a)(1), 40 CFR 63.6603, 40 CFR 63.6605(a), 40 CFR 63.6625(h), 40 CFR 63.6640(f), 40 CFR 63.6665, 40 CFR 63 Subpart ZZZZ Table 2d, 40 CFR 63 Subpart ZZZZ Table 8]. [40 CFR 63 Subpart ZZZZ]

II.B.3.c.1 **Monitoring:**

If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the required schedule, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The work practice shall be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. [40 CFR 63 Subpart ZZZZ Table 2d Footnote 1]

The permittee shall demonstrate continuous compliance by operating and maintaining the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written operation and maintenance instructions or develop and follow their own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR 63.6625(e), 40 CFR 63.6640(a), 40 CFR 63 Subpart ZZZZ Table 6]

The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in accordance with 40 CFR 63.6625(i).

The permittee shall comply with the applicable general provisions in 40 CFR 63.1-15 as identified in Table 8 of 40 CFR 63 Subpart ZZZZ. [40 CFR 63.6665].

II.B.3.c.2 **Recordkeeping:**

The permittee shall keep the records described in 40 CFR 63.6655(a)(1)-(5) as applicable. [40 CFR 63.6655(a)]

For each affected emission unit that does not meet the standards applicable to non-emergency engines, the permittee shall keep records of the hours of operation of the engine that are recorded through the non-resettable hour meter. The permittee shall document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the permittee shall keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response. [40 CFR 63.6655(f)]

If additional hours are to be used for maintenance checks and readiness testing, the permittee

shall maintain records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year. [40 CFR 63.6640(f)(1)(ii)]

The permittee shall keep records that demonstrate continuous compliance with each applicable operating limitation [including, but not limited to, the manufacturer's emission-related operation and maintenance instructions or the permittee-developed maintenance plan]. [40 CFR 63.6655(d), 40 CFR 63 Subpart ZZZZ Table 6]

Records of the maintenance conducted shall be kept in order to demonstrate that the permittee operated and maintained the affected emission unit and after-treatment control device (if any) according to their own maintenance plan. [40 CFR 63.6655(e)]

The permittee shall comply with the applicable general provisions in 40 CFR 63.1-15 as identified in Table 8 of 40 CFR 63 Subpart ZZZZ. [40 CFR 63.6665].

II.B.3.c.3 **Reporting:**

The permittee shall report any failure to perform the work practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable. [40 CFR 63 Subpart ZZZZ Table 2c Footnote 1]

The permittee shall comply with the applicable general provisions in 40 CFR 63.1-15 as identified in 40 CFR 63 Subpart ZZZZ Table 8. [40 CFR 63.6665] The permittee shall also report each instance in which it did not meet the applicable requirements in Table 8. [40 CFR 63.6640(e)]

There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.C **Emissions Trading**
(R307-415-6a(10))

Not applicable to this source.

II.D **Alternative Operating Scenarios**
(R307-415-6a(9))

Not applicable to this source.

SECTION III: PERMIT SHIELD

A permit shield was not granted for any specific requirements.

SECTION IV: ACID RAIN PROVISIONS

IV.A **This source is not subject to Title IV. This section is not applicable.**

REVIEWER COMMENTS

This operating permit incorporates all applicable requirements contained in the following documents:

Incorporates DAQE-AN113620001-15 dated November 24, 2015

1. Comment on an item originating in regarding MSW Landfill
   Comment on an item originating in 40 CFR 60.154: Definition of "Significant amount": A significant amount of waste is hereby defined as one cubic meter of asbestos-containing waste material. Based on EPA standard conversion factors for typical asbestos-waste containers, one cubic meter of material is approximately equal to 9.8 drums or barrels (35 gallon each) or 17.4 plastic bags. [Comment last updated on 5/21/2002]

2. Comment on an item originating in regarding Permitted Source (Source-wide)
   Comment on an item originating in R307-307: Salting and Sanding Requirements: R307-307 requires that any person who applies salt, crushed slag or sand to roads in Salt Lake, Davis, or Utah County's shall maintain records of material applied as outlined in the permit. It also requires the salt to be at least 92% sodium chloride (NaCl). Alternatively, the permittee may demonstrate to the Board that the material applied has no more PM_{10}or $PM_{2.5}$ emissions than Salt which is at least 92% NaCl, $MgCl_2$, $CaCl_2$, and/or KCl [Comment last updated on June 2015]

4. Comment on an item originating in this permit regarding MSW Landfill
   Green House Gases: Green House Gas (GHG) applicability has been reviewed and there are no GHG requirements included in this permit. [Last updated June 2015]

5. Comment on an item originating in regarding Permitted Source (Source-wide)
   Renewal Permit (2020):
   (1) Incorporated requirements from AO DAQE-AN11362001-15 and NESHP ZZZZ;
   (2) Applicability of NSPS IIII: All three emergency generators are manufactured prior to 2001. Therefore, NSPS IIII doesn't apply. [Last updated February 19, 2020]

6. Comment on an item originating in 40 CFR 62 Subpart OOO regarding MSW Landfill
   A collection and control system design plan was prepared by a professional engineer and submitted to the Director on June 15, 1999 according to 40 CFR 60 Subpart WWW paragraph 60.757(c) and the schedule in paragraphs 60.757(c)(1) and (2). A collection and control system that captures the gas generated within the landfill was operational December 15, 2000, and within 30 months after the first annual report in which the emission rate equaled or exceeded 50 megagrams per year. Therefore, the municipal solid waste (MSW) landfill is a legacy controlled landfill as defined in 40 CFR 62.16730 and as such shall comply with all applicable requirements in 40 CFR 62 Subpart OOO. [Last updated July 19, 2022]

7. Comment on an item originating in 40 CFR 63 Subpart AAAA regarding Municipal Solid Waste Landfill
   A collection and control system design plan was prepared by a professional engineer and submitted to the Director on June 15, 1999 according to 40 CFR 60 Subpart WWW paragraph 60.757(c) and the schedule in paragraphs 60.757(c)(1) and (2). A collection and control system that captures the gas generated within the landfill was operational December 15, 2000, and within 30 months after the first annual report in which the emission rate equaled or exceeded 50 megagrams per year which meets the requirements

of 40 CFR 60 Subpart AAAA paragraphs 60.1959(b)(2)(i) and (ii). [Last updated July 19, 2022]

8. Comment on an item originating in 40 CFR 60 Subpart WWW regarding Municipal Solid Waste Landfill

Removal of 40 CFR 60 Subpart WWW requirements: According to 40 CFR 60.750(d) an affected municipal solid waste landfill shall continue to comply with 40 CFR 60 Subpart WWW until it becomes subject to the more stringent requirements in an approved and effective state or federal plan that implements 40 CFR 60 Subpart Cc. The landfill is now subject to 40 CFR 62 Subpart OOO which contains the substantive requirements of 40 CFR 60 Subpart Cc, and is therefore no longer subject to the requirements 40 CFR 60 Subpart WWW. Since the requirements of 40 CFR 62 Subpart OOO are now included in the Title V permit, the requirements of 40 CFR 60 Subpart WWW have been removed. [Last updated July 19, 2022]

9. Comment on an item originating in 40 CFR 62 Subpart OOO regarding Municipal Solid Waste Landfill

Compliance with various requirements in 40 CFR 62 Subpart OOO through compliance with 40 CFR 63 Subpart AAAA:

According to 40 CFR 62 Subpart OOO the permittee can comply with the provisions in 40 CFR 62.16716, 60.16720, and 60.16722 of Subpart OOO, or the operational provisions in 40 CFR 63.1958, 63.1960 and 63.1961 of Subpart AAAA, or both. However, once the permittee begins to comply with 40 CFR 63.1958, 63.1960, and 63.1961 of Subpart AAAA, the permittee shall continue to operate according to those provisions and cannot return to the provisions of 40 CFR 62.16716, 62.16720, and 62.16722 of Subpart OOO. Since the permittee is subject to 40 CFR 63 Subpart AAAA, the permittee is required to comply with the provisions in 40 CFR 63.1958, 63.1960, and 63.1961. Therefore, the permittee is required to comply with the provisions in condition II.B.2.g paragraphs (c) through (i) as well as the monitoring provisions in II.B.2.g.1 paragraphs (d) through (n) of this permit, and cannot return to the provisions in 40 CFR 62.16716, 62.16720, and 62.16722 of Subpart OOO.

According to 40 CFR 62.16726(e) of Subpart OOO, the permittee that chooses to comply with the provisions in 40 CFR 63.1958, 63.1960, and 63.1961 of Subpart AAAA is required to keep the records in paragraph 40 CFR 62.16726(e)(6) of Subpart OOO and according to 40 CFR 63.1983(e)(1) through (5) of Subpart AAAA in lieu of paragraphs 40 CFR 62.16726(e)(1) through (5) of Subpart OOO. Since the permittee is subject to 40 CFR 63 Subpart AAAA, the permittee is required to comply with the provisions in 40 CFR 63.1958, 63.1960, and 63.1961. Therefore, the permittee is required to keep the records in II.B.2.a.2 paragraph (e)(1) and according to II.B.2.g.2 paragraphs (e)(1) through (5) of this permit in lieu of keeping records 40 CFR 62.16726(e)(1) through (5) of Subpart OOO. According to 40 CFR 62.16724(h) of Subpart OOO, if complying with the provisions in 40 CFR 63.1958, 63.1960, and 63.1961 of Subpart AAAA, the permittee is required to follow the semi-annual reporting requirements in 40 CFR 63.1981(h) of Subpart AAAA in lieu of 40 CFR 62.16724(h) of Subpart OOO. Since the permittee is subject to 40 CFR 63 Subpart AAAA, the permittee is required to comply with the provisions in 40 CFR 63.1958, 63.1960, and 63.1961. Therefore, the permittee is required to follow the semiannual reporting requirements in II.B.2.g.3 paragraph (e) of this permit in lieu of reporting requirements in 40 CFR 62.16724(h) of Subpart OOO.

According to 40 CFR 62.16724(k) of Subpart OOO, if complying with the provisions in 40 CFR 63.1958, 63.1960, and 63.1961 of Subpart AAAA, the permittee is required to follow the corrective action and the corresponding timeline reporting requirements in 40 CFR

63.1981(j) of Subpart AAAA in lieu of 40 CFR 62.16724(k)(1) and (2) of Subpart OOO. Since the permittee is subject to 40 CFR 63 Subpart AAAA the permittee is required to comply with the provisions in 40 CFR 63.1958, 63.1960, and 63.1961. Therefore, the permittee is required to follow the corrective action and the corresponding timeline reporting requirements in II.B.2.g.3 paragraph (f) of this permit in lieu of 40 CFR 62.16724(k)(1) and (2) of Subpart OOO.

According to 40 CFR 62.16724(q) of Subpart OOO, the permittee that chooses to comply with the provisions in 40 CFR 63.1958, 63.1960, and 63.1961 of Subpart AAAA is required to submit the 24-hour high temperature report according to 40 CFR 63.1981(k) of Subpart AAAA. Since the permittee is subject to 40 CFR 63 Subpart AAAA, the permittee is required to comply with the provisions in 40 CFR 63.1958, 63.1960, and 63.1961. Therefore, the permittee is required to submit the 24-hour high temperature report according to the reporting requirements in II.B.2.g.3 paragraph (g) of this permit. [Last updated July 19, 2022]