

CLASS I AIR QUALITY PERMIT

DRAFT PERMIT No. 92848

PERMITTEE: Waste Management of Arizona, Inc.
FACILITY: Gray Wolf Regional Landfill
PLACE ID: 6607
DATE ISSUED: DATE PENDING
EXPIRY DATE: DATE PENDING

SUMMARY

This Class I air quality permit is issued to Waste Management of Arizona, Inc. the Permittee, for the continued operation of the Gray Wolf Regional Landfill. The facility is located at 23355 E Highway 169, Mile Post 11, Dewey, Yavapai County, AZ 86327 (Place ID: 6607). This permit renews and supersedes Permit # 65627. The design capacity for the landfill is approximately 32.7 million cubic yards. The landfill consists of a total of 422.5 acres of land, of which approximately 172.2 acres are dedicated to refuse disposal. Additionally, the Permittee will install and begin operation of a gas collection and control system (GCCS) during this permit term to control emissions of landfill gas. The GCCS will consist of an active collection system and a non-enclosed flare control system.

The facility's potential to emit (PTE), with or without controls or operating limitations, of air pollutants is less than major source thresholds. A Class I permit is required under A.A.C. R18-2-302.B.4 because the facility is subject to Arizona Administrative Code (A.A.C.) R18-2-731 and, consequently, 40 CFR Part 60, Subpart Cf "Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills", which requires the Permittee to obtain a Title V permit because the facility has a design capacity equal to or exceeding 2.5 million megagrams and 2.5 million cubic meters. Lastly, Minor New Source Review (NSR) requirements are not triggered by the addition of the GCCS because the increases in potential emissions of regulated minor New Source Review (NSR) pollutants associated with this change do not exceed permitting exemption thresholds in A.A.C. R18-2-101(101).

This permit is issued in accordance with Arizona Revised Statutes (ARS) 49-426. It contains requirements from Title 18, Chapter 2 of the A.A.C. and Title 40 of the Code of Federal Regulations. All definitions, terms, and conditions used in this permit conform to those in the Arizona Administrative Code R18-2-101 et. seq. (A.A.C.) and Title 40 of the Code of Federal Regulations (CFR), except as otherwise defined in this permit.

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Table of Contents

ATTACHMENT “A”: GENERAL PROVISIONS..... 4

I. PERMIT EXPIRATION AND RENEWAL..... 4

II. COMPLIANCE WITH PERMIT CONDITIONS 4

III. PERMIT REVISION, REOPENING, REVOCATION AND REISSUANCE, OR TERMINATION FOR CAUSE..... 4

IV. POSTING OF PERMIT 5

V. FEE PAYMENT 5

VI. EMISSIONS INVENTORY QUESTIONNAIRE 5

VII. COMPLIANCE CERTIFICATION 6

VIII. CERTIFICATION OF TRUTH, ACCURACY AND COMPLETENESS 7

IX. INSPECTION AND ENTRY 7

X. ACCIDENTAL RELEASE PROGRAM..... 7

XI. EXCESS EMISSIONS, PERMIT DEVIATIONS, AND EMERGENCY REPORTING 8

XII. RECORDKEEPING REQUIREMENTS 14

XIII. REPORTING REQUIREMENTS 15

XIV. DUTY TO PROVIDE INFORMATION..... 15

XV. PERMIT AMENDMENT OR REVISION..... 15

XVI. FACILITY CHANGE WITHOUT A PERMIT REVISION 16

XVII. TESTING REQUIREMENTS 17

XVIII. PROPERTY RIGHTS..... 19

XIX. SEVERABILITY CLAUSE 19

XX. PERMIT SHIELD..... 20

XXI. PROTECTION OF STRATOSPHERIC OZONE 20

XXII. APPLICABILITY OF NSPS/NESHAP GENERAL PROVISIONS 20

ATTACHMENT “B”: SPECIFIC CONDITIONS 21

I. FACILITY-WIDE REQUIREMENTS..... 21

II. LANDFILL REQUIREMENTS 23

III. ASBESTOS 56

IV. NON-EMERGENCY COMPRESSION IGNITION (CI) INTERNAL COMBUSTION ENGINE (ICE) 60

V. FUGITIVE DUST REQUIREMENTS..... 63

VI. OTHER PERIODIC ACTIVITIES..... 65

ATTACHMENT “C”: EQUIPMENT LIST..... 69

ATTACHMENT "A": GENERAL PROVISIONS

I. PERMIT EXPIRATION AND RENEWAL

- A.** This permit is valid for a period of five (5) years from the date of issuance.
[ARS § 49-426.F, A.A.C. R18-2-306.A.1]
- B.** The Permittee shall submit an application for renewal of this permit at least six (6) months, but not more than eighteen (18) months, prior to the date of permit expiration.
[A.A.C. R18-2-304.D.2]

II. COMPLIANCE WITH PERMIT CONDITIONS

- A.** The Permittee shall comply with all conditions of this permit including all applicable requirements of the Arizona Revised Statutes (A.R.S.) Title 49, Chapter 3, and the air quality rules under Title 18, Chapter 2 of the Arizona Administrative Code. Any permit noncompliance is grounds for enforcement action; for permit termination, revocation and reissuance, revision; or for denial of a permit renewal application. In addition, noncompliance with any federally enforceable requirement constitutes a violation of the Clean Air Act.
[A.A.C. R18-2-306.A.8.a]
- B.** 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.
[A.A.C. R18-2-306.A.8.b]

III. PERMIT REVISION, REOPENING, REVOCATION AND REISSUANCE, OR TERMINATION FOR CAUSE

- A.** The permit may be revised, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a permit revision, revocation and reissuance, termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
[A.A.C. R18-2-306.A.8.c]
- B.** The permit shall be reopened and revised under any of the following circumstances:
1. Additional applicable requirements under the Clean Air Act become applicable to the Class I source. Such a reopening shall only occur if there are three or more years remaining in the permit term. The reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to A.A.C. R18-2-322.B. Any permit revision required pursuant to this subparagraph shall comply with the provisions in A.A.C. R18-2-322 for permit renewal and shall reset the five-year permit term;
[A.A.C. R18-2-321.A.1.a]

2. Additional requirements, including excess emissions requirements, become applicable to an affected source under the acid rain program. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the Class I permit;
[A.A.C. R18-2-321.A.1.b]
 3. The Director or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; and
[A.A.C. R18-2-321.A.1.c]
 4. The Director or the Administrator determines that the permit needs to be revised or revoked to assure compliance with the applicable requirements.
[A.A.C. R18-2-321.A.1.d]
- C. Proceedings to reopen and issue a permit, including appeal of any final action relating to a permit reopening, shall follow the same procedures as apply to initial permit issuance and shall, except for reopenings under Condition III.B.1 above, affect only those parts of the permit for which cause to reopen exists. Such reopening shall be made as expeditiously as practicable. Permit reopenings for reasons other than those stated in Condition III.B.1 above shall not result in a resetting of the five-year permit term.
[A.A.C. R18-2-321.A.2]

IV. POSTING OF PERMIT

- A. The Permittee shall post this permit or a certificate of permit issuance at the facility in such a manner as to be clearly visible and accessible. All equipment covered by this permit shall be clearly marked with one of the following:
[A.A.C. R18-2-315.A]
1. Current permit number; or
 2. Serial number or other equipment identification number (equipment ID number) that is also listed in the permit to identify that piece of equipment.
- B. A copy of the complete permit shall be kept on site.
[A.A.C. R18-2-315.B]

V. FEE PAYMENT

The Permittee shall pay fees to the Director pursuant to ARS § 49-426(E) and A.A.C. R18-2-326.
[A.A.C. R18-2-306.A.9 and -326]

VI. EMISSIONS INVENTORY QUESTIONNAIRE

- A. The Permittee shall complete and submit to the Director an emissions inventory questionnaire no later than June 1 of each year.
[A.A.C. R18-2-327.A.1.a]

- B.** The emissions inventory questionnaire shall be on an electronic or paper form provided by the Director and shall include the information required by A.A.C. R18-2-327.A.3 for the previous calendar year.

[A.A.C. R18-2-327.A.3]

- C.** The Permittee shall submit to the Director an amendment to an emissions inventory questionnaire, containing the documentation required by A.A.C. R18-2-327.A.3, whenever the Permittee discovers or receives notice, within two years of the original submittal, that incorrect or insufficient information was submitted to the Director by a previous emissions inventory questionnaire. The amendment shall be submitted to the Director within 30 days of discovery or receipt of notice. If the incorrect or insufficient information resulted in an incorrect annual emissions fee, the Director shall require that additional payment be made or shall apply an amount as a credit to a future annual emissions fee. The submittal of an amendment shall not subject the Permittee to an enforcement action or a civil or criminal penalty if the original submittal of incorrect or insufficient information was not due to willful neglect.

[A.A.C. R18-2-327.A.4]

VII. COMPLIANCE CERTIFICATION

- A.** The Permittee shall submit a compliance certification to the Director semiannually, which describes the compliance status of the source with respect to each permit condition. The first certification shall be submitted no later than May 15th, and shall report the compliance status of the source during the period between October 1st of the previous year and March 31st of the current year. The second certification shall be submitted no later than November 15th, and shall report the compliance status of the source during the period between April 1st and September 30th of the current year.

[A.A.C. R18-2-309.2.a]

- B.** The compliance certifications shall include the following:

1. Identification of each term or condition of the permit that is the basis of the certification;

[A.A.C. R18-2-309.2.c.i]

2. 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,

[A.A.C. R18-2-309.2.c.ii]

3. 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 certifications shall identify each deviation (including any deviations reported pursuant to Condition XI.B of this Attachment) during the period covered by the certification and take it into account for consideration in the compliance certification;

[A.A.C. R18-2-309.2.c.iii]

4. For emission units subject to 40 CFR Part 64, the certification shall also identify as possible exceptions to compliance any period during which compliance is required and in which an excursion or exceedance defined under 40 CFR Part 64 occurred;

[A.A.C. R18-2-309.2.c.iii]

5. Other facts the Director may require to determine the compliance status of the source.

[A.A.C. R18-2-309.2.c.iv]

- C. A copy of all compliance certifications shall also be submitted to the EPA Administrator.
[A.A.C. R18-2-309.2.d]

- D. If any outstanding compliance schedule exists, a progress report shall be submitted with the semi-annual compliance certifications required in Condition VII.A above. The progress reports shall contain the information required by A.A.C R18-2-309.5.d.
[A.A.C. R18-2-309.5.d]

VIII. CERTIFICATION OF TRUTH, ACCURACY AND COMPLETENESS

Any document required to be submitted by this permit, including reports, shall contain a certification by a responsible official of truth, accuracy, and completeness. 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.

[A.A.C. R18-2-309.3]

IX. INSPECTION AND ENTRY

Upon presentation of proper credentials, the Permittee shall allow the Director or the authorized representative of the Director to:

- A. Enter upon the Permittee's premises where a source is located, emissions-related activity is conducted, or where records are required to be kept under the conditions of the permit;
[A.A.C. R18-2-309.4.a]
- B. Have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;
[A.A.C. R18-2-309.4.b]
- C. Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;
[A.A.C. R18-2-309.4.c]
- D. Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or other applicable requirements; and
[A.A.C. R18-2-309.4.d]
- E. Record any inspection by use of written, electronic, magnetic and photographic media.
[A.A.C. R18-2-309.4.e]

X. ACCIDENTAL RELEASE PROGRAM

If this source becomes subject to the provisions of 40 CFR Part 68, then the Permittee shall comply with these provisions according to the time line specified in 40 CFR Part 68.

[40 CFR Part 68]

XI. EXCESS EMISSIONS, PERMIT DEVIATIONS, AND EMERGENCY REPORTING

A. Excess Emissions Reporting

[A.A.C. R18-2-310.01.A, B, and C]

1. Excess emissions shall be reported as follows:

a. The Permittee shall report to the Director any emissions in excess of the limits established by this permit. Such report shall be in two parts as specified below:

(1) Notification by telephone or facsimile within 24 hours of the time when the Permittee first learned of the occurrence of excess emissions including all available information from Condition XI.A.1.b below.

(2) Detailed written notification by submission of an excess emissions report within 72 hours of the notification pursuant to Condition XI.A.1.a(1) above.

[A.A.C. R18-2-310.01.A]

b. The report shall contain the following information:

(1) Identity of each stack or other emission point where the excess emissions occurred;

[A.A.C. R18-2-310.01.B.1]

(2) Magnitude of the excess emissions expressed in the units of the applicable emission limitation and the operating data and calculations used in determining the magnitude of the excess emissions;

[A.A.C. R18-2-310.01.B.2]

(3) Time and duration, or expected duration, of the excess emissions;

[A.A.C. R18-2-310.01.B.3]

(4) Identity of the equipment from which the excess emissions emanated;

[A.A.C. R18-2-310.01.B.4]

(5) Nature and cause of such emissions;

[A.A.C. R18-2-310.01.B.5]

(6) If the excess emissions were the result of a malfunction, steps taken to remedy the malfunction and the steps taken or planned to prevent the recurrence of such malfunctions;

[A.A.C. R18-2-310.01.B.6]

(7) Steps that were or are being taken to limit the excess emissions; and

[A.A.C. R18-2-310.01.B.7]

- (8) If the excess emissions resulted from startup or malfunction, the report shall contain a list of the steps taken to comply with any permit procedures governing source operation during periods of startup or malfunction.

[A.A.C. R18-2-310.01.B.8]

2. In the case of continuous or recurring excess emissions, the notification requirements shall be satisfied if the source provides the required notification after excess emissions are first detected and includes in such notification an estimate of the time the excess emissions will continue. Excess emissions occurring after the estimated time period, or changes in the nature of the emissions as originally reported, shall require additional notification pursuant to Condition XI.A.1 above.

[A.A.C. R18-2-310.01.C]

B. Permit Deviations Reporting

The Permittee shall promptly report deviations from permit requirements, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken. Where the applicable requirement contains a definition of prompt or otherwise specifies a timeframe for reporting deviations, that definition or timeframe shall govern. Where the applicable requirement does not address the timeframe for reporting deviations, the Permittee shall submit reports of deviations according to the following schedule:

1. Notice that complies with Condition XI.A.1 above is prompt for deviations that constitute excess emissions;
2. Notice that is submitted within two working days of discovery of the deviation is prompt for deviations of permit conditions identified by Condition I.B.1 of Attachment “B”;
3. Except as provided in Conditions XI.B.1 and 2 above, prompt notification of all other types of deviations shall be every 6 months, concurrent with the semi-annual compliance certifications required in Section VII, and can be submitted via myDEQ, the Arizona Department of Environmental Quality’s online portal.

[A.A.C. R18-2-306.A.5.b.i]

[A.A.C. R18-2-306.A.5.b.ii]

[A.A.C. R18-2-306.A.5.b.ii]

C. Emergency Provision

1. An “emergency” means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, that require immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the 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 preventative maintenance, careless or improper operation, or operator error.

[A.A.C. R18-2-306.E.1]

2. An emergency constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if Condition XI.C.3 below is met.

[A.A.C. R18-2-306.E.2]
3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

[A.A.C. R18-2-306.E.3]

 - a. An emergency occurred and that the Permittee can identify the cause(s) of the emergency;

[A.A.C. R18-2-306.E.3.a]
 - b. The permitted facility was being properly operated at the time of the emergency;

[A.A.C. R18-2-306.E.3.b]
 - c. During the period of the emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and

[A.A.C. R18-2-306.E.3.c]
 - d. The Permittee submitted notice of the emergency to the Director by certified mail, facsimile, or hand delivery within two working days of the time when emission limitations were exceeded due to the emergency. This notice shall contain a description of the emergency, any steps taken to mitigate emissions, and corrective action taken.

[A.A.C. R18-2-306.E.3.d]
4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

[A.A.C. R18-2-306.E.4]
5. This provision is in addition to any emergency or upset provision contained in any applicable requirement.

[A.A.C. R18-2-306.E.5]

D. Compliance Schedule

For any excess emission or permit deviation that cannot be corrected within 72 hours, the Permittee is required to submit a compliance schedule to the Director within 21 days of such occurrence. The compliance schedule shall include a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with the permit terms or conditions that have been violated.

[ARS § 49-426.I.3]

E. Affirmative Defenses for Excess Emissions Due to Malfunctions, Startup, and Shutdown

1. Applicability

A.A.C. R18-2-310 establishes affirmative defenses for certain emissions in excess of an emission standard or limitation and applies to all emission standards or limitations except for standards or limitations:

- a. Promulgated pursuant to Sections 111 or 112 of the Act;
[A.A.C. R18-2-310.A.1]
[State Enforceable Only]
- b. Promulgated pursuant to Titles IV or VI of the Clean Air Act;
[A.A.C. R18-2-310.A.2]
[State Enforceable Only]
- c. Contained in any Prevention of Significant Deterioration (PSD) or New Source Review (NSR) permit issued by the U.S. EPA;
[A.A.C. R18-2-310.A.3]
[State Enforceable Only]
- d. Contained in A.A.C. R18-2-715.F; or
[A.A.C. R18-2-310.A.4]
[State Enforceable Only]
- e. Included in a permit to meet the requirements of A.A.C. R18-2-406.A.5.
[A.A.C. R18-2-310.A.5]
[State Enforceable Only]

2. Affirmative Defense for Malfunctions

Emissions in excess of an applicable emission limitation due to malfunction shall constitute a violation. When emissions in excess of an applicable emission limitation are due to a malfunction, the Permittee has an affirmative defense to a civil or administrative enforcement proceeding based on that violation, other than a judicial action seeking injunctive relief, if the Permittee has complied with the reporting requirements of A.A.C. R18-2-310.01 and has demonstrated all of the following:

- [A.A.C. R18-2-310.B]
[State Enforceable Only]
- a. The excess emissions resulted from a sudden and unavoidable breakdown of process equipment or air pollution control equipment beyond the reasonable control of the Permittee;
[A.A.C. R18-2-310.B.1]
[State Enforceable Only]
 - b. The air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good practice for minimizing emissions;
[A.A.C. R18-2-310.B.2]
[State Enforceable Only]
 - c. If repairs were required, the repairs were made in an expeditious fashion when the applicable emission limitations were being exceeded. Off-shift labor and overtime were utilized where practicable to ensure that the

repairs were made as expeditiously as possible. If off-shift labor and overtime were not utilized, the Permittee satisfactorily demonstrated that the measures were impracticable;

[A.A.C. R18-2-310.B.3]
[State Enforceable Only]

- d. The amount and duration of the excess emissions (including any bypass operation) were minimized to the maximum extent practicable during periods of such emissions;

[A.A.C. R18-2-310.B.4]
[State Enforceable Only]

- e. All reasonable steps were taken to minimize the impact of the excess emissions on ambient air quality;

[A.A.C. R18-2-310.B.5]
[State Enforceable Only]

- f. The excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance;

[A.A.C. R18-2-310.B.6]
[State Enforceable Only]

- g. During the period of excess emissions there were no exceedances of the relevant ambient air quality standards established in Title 18, Chapter 2, Article 2 of the Arizona Administrative Code that could be attributed to the emitting source;

[A.A.C. R18-2-310.B.7]
[State Enforceable Only]

- h. The excess emissions did not stem from any activity or event that could have been foreseen and avoided, or planned, and could not have been avoided by better operations and maintenance practices;

[A.A.C. R18-2-310.B.8]
[State Enforceable Only]

- i. All emissions monitoring systems were kept in operation if at all practicable; and

[A.A.C. R18-2-310.B.9]
[State Enforceable Only]

- j. The Permittee's actions in response to the excess emissions were documented by contemporaneous records.

[A.A.C. R18-2-310.B.10]
[State Enforceable Only]

3. Affirmative Defense for Startup and Shutdown

- a. Except as provided in Condition XI.E.3.b below, and unless otherwise provided for in the applicable requirement, emissions in excess of an applicable emission limitation due to startup and shutdown shall constitute a violation. When emissions in excess of an applicable emission limitation are due to startup and shutdown, the Permittee has an affirmative defense

to a civil or administrative enforcement proceeding based on that violation, other than a judicial action seeking injunctive relief, if the Permittee has complied with the reporting requirements of A.A.C. R18-2-310.01 and has demonstrated all of the following:

[A.A.C. R18-2-310.C.1]
[State Enforceable Only]

- (1) The excess emissions could not have been prevented through careful and prudent planning and design;

[A.A.C. R18-2-310.C.1.a]
[State Enforceable Only]

- (2) If the excess emissions were the result of a bypass of control equipment, the bypass was unavoidable to prevent loss of life, personal injury, or severe damage to air pollution control equipment, production equipment, or other property;

[A.A.C. R18-2-310.C.1.b]
[State Enforceable Only]

- (3) The air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good practice for minimizing emissions;

[A.A.C. R18-2-310.C.1.c]
[State Enforceable Only]

- (4) The amount and duration of the excess emissions (including any bypass operation) were minimized to the maximum extent practicable during periods of such emissions;

[A.A.C. R18-2-310.C.1.d]
[State Enforceable Only]

- (5) All reasonable steps were taken to minimize the impact of the excess emissions on ambient air quality;

[A.A.C. R18-2-310.C.1.e]
[State Enforceable Only]

- (6) During the period of excess emissions there were no exceedances of the relevant ambient air quality standards established in Title 18, Chapter 2, Article 2 of the Arizona Administrative Code that could be attributed to the emitting source;

[A.A.C. R18-2-310.C.1.f]
[State Enforceable Only]

- (7) All emissions monitoring systems were kept in operation if at all practicable; and

[A.A.C. R18-2-310.C.1.g]
[State Enforceable Only]

- (8) Contemporaneous records documented the Permittee's actions in response to the excess emissions.

[A.A.C. R18-2-310.C.1.h]
[State Enforceable Only]

XII. RECORDKEEPING REQUIREMENTS

- b. If excess emissions occur due to a malfunction during routine startup and shutdown, then those instances shall be treated as other malfunctions subject to Condition XI.E.2 above.

[A.A.C. R18-2-310.C.2]
[State Enforceable Only]

4. Affirmative Defense for Malfunctions during Scheduled Maintenance

If excess emissions occur due to a malfunction during scheduled maintenance, then those instances will be treated as other malfunctions subject to Condition XI.E.2 above.

[A.A.C. R18-2-310.D]
[State Enforceable Only]

5. Demonstration of Reasonable and Practicable Measures

For an affirmative defense under Condition XI.E.2 or XI.E.3, the Permittee shall demonstrate, through submission of the data and information required by this Condition XI.E and Condition XI.A.1 above, that all reasonable and practicable measures within the Permittee's control were implemented to prevent the occurrence of the excess emissions.

[A.A.C. R18-2-310.E]
[State Enforceable Only]

XII. RECORDKEEPING REQUIREMENTS

- A. The Permittee shall keep records of all required monitoring information including, but not limited to, the following:

[A.A.C. R18-2-306.A.4.a]

1. The date, place as defined in the permit, and time of sampling or measurements;

[A.A.C. R18-2-306.A.4.a.i]

2. The date(s) any analyses were performed;

[A.A.C. R18-2-306.A.4.a.ii]

3. The name of the company or entity that performed the analyses;

[A.A.C. R18-2-306.A.4.a.iii]

4. A description of the analytical techniques or methods used;

[A.A.C. R18-2-306.A.4.a.iv]

5. The results of analyses; and

[A.A.C. R18-2-306.A.4.a.v]

6. The operating conditions as existing at the time of sampling or measurement.

[A.A.C. R18-2-306.A.4.a.vi]

- B. The Permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance

records and all original strip-chart recordings or other data recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

[A.A.C. R18-2-306.A.4.b]

XIII. REPORTING REQUIREMENTS

The Permittee shall submit the following reports:

- A. Compliance certifications in accordance with Section VII above. [A.A.C. R18-2-306.A.5.a]
- B. Excess emission; permit deviation, and emergency reports in accordance with Section XI above. [A.A.C. R18-2-306.A.5.b]
- C. Other reports required by any condition of Attachment "B". [A.A.C. R18-2-306.A.5.a]

XIV. DUTY TO PROVIDE INFORMATION

- A. 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 revising, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, the Permittee shall also furnish to the Director copies of records required to be kept by the permit. For information claimed to be confidential, the Permittee shall furnish an additional copy of such records directly to the Administrator along with a claim of confidentiality. [A.A.C. R18-2-304.G and -306.A.8.e]
- B. If the Permittee has failed to submit any relevant facts or has submitted incorrect information in the permit application, the Permittee shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information. [A.A.C. R18-2-304.H]

XV. PERMIT AMENDMENT OR REVISION

The Permittee shall apply for a permit amendment or revision for changes to the facility which do not qualify for a facility change without revision under Section XVI below, as follows:

- A. Administrative Permit Amendment; [A.A.C. R18-2-318]
- B. Minor Permit Revision; and [A.A.C. R18-2-319]
- C. Significant Permit Revision [A.A.C. R18-2-320]
- D. The applicability and requirements for such action are defined in the above referenced regulations.

XVI. FACILITY CHANGE WITHOUT A PERMIT REVISION

- A.** The Permittee may make changes that contravene an express permit term without a permit revision if all of the following apply:
1. The changes are not modifications under any provision of Title I of the Act or under ARS § 49-401.01(24);
[A.A.C. R18-2-317.A.1]
 2. The changes do not exceed the emissions allowable under the permit whether expressed therein as a rate of emissions or in terms of total emissions;
[A.A.C. R18-2-317.A.2]
 3. The changes do not violate any applicable requirements or trigger any additional applicable requirements;
[A.A.C. R18-2-317.A.3]
 4. The changes satisfy all requirements for a minor permit revision under A.A.C. R18-2-319.A;
[A.A.C. R18-2-317.A.4]
 5. The changes do not contravene federally enforceable permit terms and conditions that are monitoring (including test methods), record keeping, reporting, or compliance certification requirements; and
[A.A.C. R18-2-317.A.5]
 6. The changes do not constitute a minor NSR modification.
[A.A.C. R18-2-317.A.6]
- B.** The substitution of an item of process or pollution control equipment for an identical or substantially similar item of process or pollution control equipment shall qualify as a change that does not require a permit revision, if it meets all of the requirements of Conditions XVI.A, C, and D of this Attachment.
[A.A.C. R18-2-317.B]
- C.** For each change under Conditions XVI.A and XVI.B above, a written notice by certified mail or hand delivery shall be received by the Director and the Administrator a minimum of 7 working days in advance of the change. Notifications of changes associated with emergency conditions, such as malfunctions necessitating the replacement of equipment, may be provided less than 7 working days in advance of the change, but must be provided as far in advance of the change, as possible or, if advance notification is not practicable, as soon after the change as possible.
[A.A.C. R18-2-317.D]
- D.** Each notification shall include:
1. When the proposed change will occur;
[A.A.C. R18-2-317.E.1]
 2. A description of the change;
[A.A.C. R18-2-317.E.2]

3. Any change in emissions of regulated air pollutants; and [A.A.C. R18-2-317.E.3]
 4. Any permit term or condition that is no longer applicable as a result of the change. [A.A.C. R18-2-317.E.7]
- E.** The permit shield described in A.A.C. R18-2-325 shall not apply to any change made under this Section XVI. [A.A.C. R18-2-317.F]
- F.** Except as otherwise provided for in the permit, making a change from one alternative operating scenario to another as provided under A.A.C. R18-2-306.A.11 shall not require any prior notice under this Section XVI. [A.A.C. R18-2-317.G]
- G.** Notwithstanding any other part of Section XVI, the Director may require a permit to be revised for any change that, when considered together with any other changes submitted by the same source under Section XVI over the term of the permit, do not satisfy Condition XVI.A above. [A.A.C. R18-2-317.H]

XVII. TESTING REQUIREMENTS

- A.** Except as provided in Condition XVII.F below, the Permittee shall conduct performance tests as specified in the permit and at such other times as may be required by the Director. [A.A.C. R18-2-312.A]
- B.** Operational Conditions during Performance Testing
- Performance tests shall be conducted under such conditions as the Director shall specify to the plant operator based on representative performance of the source. The Permittee shall make available to the Director such records as may be necessary to determine the conditions of the performance tests. Operations during periods of start-up, shutdown, and malfunction (as defined in A.A.C. R18-2-101) shall not constitute representative conditions of performance tests unless otherwise specified in the applicable standard. [A.A.C. R18-2-312.C]
- C.** Performance Tests shall be conducted and data reduced in accordance with the test methods and procedures contained in the Arizona Testing Manual unless modified by the Director pursuant to A.A.C. R18-2-312.B. [A.A.C. R18-2-312.B]
- D.** Test Plan
- At least 14 working days prior to performing a test, the Permittee shall submit a test plan to the Director, which must include the following, in addition to all other applicable requirements, as identified in the Arizona Testing Manual: [A.A.C. R18-2-312.B]
1. Test duration;

2. Test location(s);
3. Test method(s); and
4. Source operation and other parameters that may affect test results.

E. Stack Sampling Facilities

The Permittee shall provide, or cause to be provided, performance testing facilities as follows:

[A.A.C. R18-2-312.E]

1. Sampling ports adequate for test methods applicable to the facility;
2. Safe sampling platform(s);
3. Safe access to sampling platform(s); and
4. Utilities for sampling and testing equipment.

F. Interpretation of Final Results

Each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic mean of the results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs is required to be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the Permittee's control, compliance may, upon the Director's approval, be determined using the arithmetic mean of the results of the other two runs. If the Director or the Director's designee is present, tests may only be stopped with the Director's or such designee's approval. If the Director or the Director's designee is not present, tests may only be stopped for good cause. Good cause includes: forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the Permittee's control. Termination of any test without good cause after the first run is commenced shall constitute a failure of the test. Supporting documentation, which demonstrates good cause, must be submitted.

[A.A.C. R18-2-306.A.3.c and A.A.C. R18-2-312.F]

G. Report of Final Test Results

A written report of the results of all performance tests shall be submitted to the Director within 60 days after the test is performed. All performance testing reports shall be submitted in accordance with the Arizona Testing Manual and A.A.C. R18-2-312.A.

[A.A.C. R18-2-312.A and B]

H. Extension of Performance Test Deadline

For performance testing required under Condition XVII.A above, the Permittee may request an extension to a performance test deadline due to a force majeure event as follows:
[A.A.C. R18-2-312.J]

1. If a force majeure event is about to occur, occurs, or has occurred for which the Permittee intends to assert a claim of force majeure, the Permittee shall notify the Director in writing as soon as practicable following the date the Permittee first knew, or through due diligence should have known that the event may cause or caused a delay in testing beyond the regulatory deadline. The notification must occur before the performance test deadline unless the initial force majeure or a subsequent force majeure event delays the notice, and in such cases, the notification shall be given as soon as practicable.
[A.A.C. R18-2-312.J.1]
2. The Permittee shall provide to the Director a written description of the force majeure event and a rationale for attributing the delay in testing beyond the regulatory deadline to the force majeure; describe the measures taken or to be taken to minimize the delay; and identify a date by which the Permittee proposes to conduct the performance test. The performance test shall be conducted as soon as practicable after the force majeure event occurs.
[A.A.C. R18-2-312.J.2]
3. The decision as to whether or not to grant an extension to the performance test deadline is solely within the discretion of the Director. The Director shall notify the Permittee in writing of approval or disapproval of the request for an extension as soon as practicable.
[A.A.C. R18-2-312.J.3]
4. Until an extension of the performance test deadline has been approved by the Director under Conditions XVII.H.1, 2, and 3 above, the Permittee remains subject to the requirements of Section XVII.
[A.A.C. R18-2-312.J.4]
5. For purposes of this Section XVII, a “force majeure event” means an event that will be or has been caused by circumstances beyond the control of the Permittee, its contractors, or any entity controlled by the Permittee that prevents it from complying with the regulatory requirement to conduct performance tests within the specified timeframe despite the Permittee's best efforts to fulfill the obligation. Examples of such events are acts of nature, acts of war or terrorism, or equipment failure or safety hazard beyond the control of the Permittee.
[A.A.C. R18-2-312.J.5]

XVIII. PROPERTY RIGHTS

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

[A.A.C. R18-2-306.A.8.d]

XIX. SEVERABILITY CLAUSE

XX. PERMIT SHIELD

The provisions of this permit are severable. 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.

[A.A.C. R18-2-306.A.7]

XX. PERMIT SHIELD

Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements identified in the portions of this permit subtitled "Permit Shield". The permit shield shall not apply to minor revisions pursuant to Condition XV.B of this Attachment and any facility changes without a permit revision pursuant to Condition XVI of this Attachment.

[A.A.C. R18-2-317.F, - 320, and -325]

XXI. PROTECTION OF STRATOSPHERIC OZONE

If this source becomes subject to the provisions of 40 CFR Part 82, then the Permittee shall comply with these provisions accordingly.

[40 CFR Part 82]

XXII. APPLICABILITY OF NSPS/NESHAP GENERAL PROVISIONS

For all equipment subject to a New Source Performance Standard or a National Emission Standard for Hazardous Air Pollutants, the Permittee shall comply with all applicable requirements contained in Subpart A of Title 40, Chapter 60 and Chapter 63 of the Code of Federal Regulations.

[40 CFR Part 60 Subpart A and Part 63 Subpart A]

ATTACHMENT "B": SPECIFIC CONDITIONS

I. FACILITY-WIDE REQUIREMENTS

A. Opacity

1. Instantaneous Surveys and Six-Minute Observations

a. Instantaneous Surveys

Any instantaneous survey required by this permit shall be determined by either option listed in Conditions I.A.1.a(1) and (2):

[A.A.C. R18-2-311.b]

(1) Alternative Method ALT-082 (Digital Camera Operating Technique)

(a) The Permittee, or Permittee representative, shall be certified in the use of Alternative Method ALT-082.

(b) The results of all instantaneous surveys and six-minute observations shall be obtained within 30 minutes.

(2) EPA Reference Method 9 Certified Observer.

[A.A.C. R18-2-306.A.3.c]

b. Six-Minute Observations

Any six-minute observation required by this permit shall be determined by either option listed in Conditions I.A.1.b(1) and (2):

[A.A.C. R18-2-311.b]

(1) Alternative Method ALT-082 (Digital Camera Operating Technique)

(a) The Permittee, or Permittee representative, shall be certified in the use of Alternative Method ALT-082.

(b) The results of all instantaneous surveys and six-minute observations shall be obtained within 30 minutes.

(2) EPA Reference Method 9.

c. The Permittee shall have on site or on call a person certified in EPA Reference Method 9 unless all six-minute Method 9 observations required by this permit are conducted as a six-minute Alternative Method ALT-082 (Digital Camera Operating Technique) and all instantaneous visual surveys required by this permit are conducted as an instantaneous ALT-082 camera survey. Any six-minute Method 9 observation required by this permit can be conducted as a six-minute Alternative Method ALT-082

I. FACILITY-WIDE REQUIREMENTS

and any instantaneous visual survey required by this permit can be conducted as an instantaneous ALT-082 camera survey.

[A.A.C. R18-2-306.A.3.c]

2. Monitoring, Recordkeeping, and Reporting Requirements

[A.A.C. R18-2-306.A.3.c]

- a. At the frequency specified in the following sections of this permit, the Permittee shall conduct an instantaneous survey of visible emissions from both process stack sources, when in operation, and fugitive dust sources.
- b. If the visible emissions on an instantaneous basis appears less than or equal to the applicable opacity standard, then the Permittee shall keep a record of the name of the observer, the date on which the instantaneous survey was made, and the results of the instantaneous survey.
- c. If the visible emissions on an instantaneous basis appears greater than the applicable opacity standard, then the Permittee shall immediately conduct a six-minute observation of the visible emissions.
 - (1) If the six-minute observation of the visible emissions is less than or equal to the applicable opacity standard, then the Permittee shall record the name of the observer, the date on which the six-minute observation was made, and the results of the six-minute observation.
 - (2) If the six-minute observation of the visible emissions is greater than the applicable opacity standard, then the Permittee shall do the following:
 - (a) Adjust or repair the controls or equipment to reduce opacity to less than or equal to the opacity standard;
 - (b) Record the name of the observer, the date on which the six-minute observation was made, the results of the six-minute observation, and all corrective action taken; and
 - (c) Report the event as an excess emission for opacity in accordance with Condition XI.A of Attachment "A".
 - (d) Conduct another six-minute observation to document the effectiveness of the adjustments or repairs completed.

B. Reporting Requirements

1. Deviations from the following Attachment "B" permit conditions shall be promptly reported in accordance with Condition XI.B.2 of Attachment "A":

[A.A.C. R18-2-306.A.5.b]

- a. Condition II.B

- b. Condition II.C.1
- c. Condition II.C.2
- d. Condition II.D.1
- e. Condition II.F.1
- f. Condition II.F.2

II. LANDFILL REQUIREMENTS

The Permittee shall comply with the applicable requirements of 40 CFR Part 60, Subpart Cf “Emission Guidelines and Compliance Times for Municipal Solids Waste Landfills”.

[A.A.C. R18-2-731]

A. Requirements Applicable Prior to Installation of a Collection and Control System

The Permittee shall recalculate the NMOC emission rate as required by 40 CFR 60.33f(e) using Tier 2 or Tier 3 procedures, as outlined in 40 CFR 60.35(a)(3) and (4), respectively, and submit an NMOC Emission Rate Report to the ADEQ Director and to EPA as required by 40 CFR 60.38f(c) until a collection and control system has been installed that complies with 40 CFR 60.33f(b) and (c). The Permittee is exempt from the requirements to submit an NMOC Emission Rate Report after installing a collection and control system during such time as the system is in operation and in compliance with 40 CFR 63.1958 and 63.1960.

[40 CFR 60.33f(e) and 60.38f(c) and (c)(4)]

B. Compliance Deadline

The Permittee shall complete planning, awarding of contracts, *installing, and starting up MSW landfill air emission collection and control equipment that captures the gas generated within the landfill and is capable of meeting the Emission Guidelines in Condition II.C by September 3, 2023.*

[40 CFR 60.32f, 40 CFR 60.33f(a), (b)(1); A.A.C. R18-2-331.A.3.d and e]

[Material Permit Condition is indicated by underline and italics]

C. Emission Guidelines for the Collection and Control System

1. Active Collection System

The Permittee shall design, install, and operate an active collection system that:

[40 CFR 60.33f(b)(2); A.A.C R18-2-331.A.3.d and e]

[Material Permit Condition is indicated by underline and italics]

- a. Is designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control system equipment.

[40 CFR 60.33f(b)(2)(i)]

- b. Collects gas from each area, cell, or group of cells in the landfill in which the initial solid waste has been placed for a period of 5 years or more if active; or 2 years or more if closed or at final grade.

[40 CFR 60.33f(b)(2)(ii); A.A.C. R18-2-331.A.3.d and e]

[Material Permit Condition is indicated by underline and italics]

- c. Collects gas at a sufficient extraction rate. A sufficient extraction rate shall be a rate sufficient to maintain a negative pressure at all wellheads in the collection system without causing air infiltration, including any wellheads connected to the system as a result of expansion or excess surface emissions, for the life of the blower.

[40 CFR 60.33f(b)(2)(iii); A.A.C. R18-2-331.A.3.d and e]

[Material Permit Condition is indicated by underline and italics]

- d. Is designed to minimize off-site migration of subsurface gas.

[40 CFR 60.33f(b)(2)(vi)]

2. Non-Enclosed Flare Control System

The Permittee shall control the gas collected from within the landfill through the use of a non-enclosed flare designed and operated in accordance with the parameters established in Conditions II.D.4.a through e, except as noted in Condition II.G.1 of Attachment "B".

[40 CFR 60.33f(c)(1); A.A.C. R18-2-331.A.3.e]

[Material Permit Condition is indicated by underline and italics]

D. Design Specifications and Operational Standards for the Collection and Control System

1. At all times, the Permittee operate and maintain the landfill, 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 the requirements of this permit have been achieved. Determination of whether a source is operating in compliance with operation and maintenance requirements 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 63.1955(c); A.A.C. R18-2-331.A.3.e]

[Material Permit Condition is indicated by underline and italics]

2. The Permittee shall operate the system in accordance to Condition II.D.1 such that all collected gases are vented to a control system designed and operated in compliance with Condition II.D.4. In the event the collection or control system is not operating:

[40 CFR 60.34f and 63.1958(e)(1)]

- a. The gas mover system must be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere must be closed within 1 hour of the collection or control system not operating; and

[40 CFR 60.34f and 63.1958(e)(1)(i)]

- b. Efforts to repair the collection or control system must be initiated and completed in a manner such that downtime is kept to a minimum, and the collection and control system must be returned to operation.

[40 CFR 60.34f and 63.1958(e)(1)(ii)]

3. Active Collection System

- a. The Permittee shall site active collection wells, horizontal collectors, surface collectors, or other extraction devices at a sufficient density throughout all gas producing areas using the following procedures unless alternative procedures have been approved by the Director.

[40 CFR 60.40f(a)]

- (1) The collection devices within the interior must be certified to achieve comprehensive control of surface gas emissions by a professional engineer. The following issues must be addressed in the design: depths of refuse, refuse gas generation rates and flow characteristics, cover properties, gas system expandability, leachate and condensate management, accessibility, compatibility with filling operations, integration with closure end use, air intrusion control, corrosion resistance, fill settlement, resistance to the refuse decomposition heat, and ability to isolate individual components or sections for repair or troubleshooting without shutting down entire collection system.

[40 CFR 60.40f(a)(1)]

- (2) The sufficient density of gas collection devices as determined above in Condition II.D.3.a(1) of Attachment "B" shall address landfill gas migration issues and augmentation of the collection system through the use of active or passive systems at the landfill perimeter or exterior.

[40 CFR 60.40f(a)(2)]

- (3) The placement of gas collection devices as determined above in Condition II.D.3.a(1) of Attachment "B" shall control all gas producing areas, except as provided by below in Conditions II.D.3.a(3)(a) and (b) of Attachment "B".

[40 CFR 60.40f(a)(3)]

- (a) Any segregated area of asbestos or nondegradable material may be excluded from collection if documented as provided under Condition II.I.4 of Attachment "B". The documentation must provide the nature, date of deposition, location and amount of asbestos or nondegradable material deposited in the area, and must be provided to the Director upon request.

[40 CFR 60.40f(a)(3)(i)]

II. LANDFILL REQUIREMENTS

- (b) Any nonproductive area of the landfill may be excluded from control, provided that the total of all excluded areas can be shown to contribute less than 1 percent of the total amount of NMOC emissions from the landfill. The amount, location, and age of the material must be documented and provided to the Director upon request. A separate NMOC emissions estimate must be made for each section proposed for exclusion, and the sum of all such sections must be compared to the NMOC emissions estimate for the entire landfill.

[40 CFR 60.40f(a)(3)(ii)]

- (i) The NMOC emissions from each section proposed for exclusion must be computed using the following equation:

[40 CFR 60.40f(a)(3)(ii)(A)]

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

Where:

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

k = Methane generation rate constant, year⁻¹.

L_o = Methane generation potential, cubic meters per Mg solid waste.

M_i = Mass of the degradable solid waste in the i^{th} section, Mg.

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

C_{NMOC} = Concentration of NMOC, parts per million by volume (ppm_v).

3.6×10^{-9} = Conversion factor.

- (ii) If the Permittee is proposing to exclude, or cease gas collection and control from, nonproductive physically separated (e.g., separately lined) closed areas that already have gas collection systems, NMOC emissions from each physically separated closed area must be computed using either the equation above in Condition II.D.3.a(3)(b)(i) or the equation in Condition II.G.2 of Attachment "B".

[40 CFR 60.40f(a)(3)(ii)(B)]

- (iii) The values for k and C_{NMOC} determined in field testing must be used if field testing has been performed in determining the NMOC emission rate or the radii of influence (the distance from the well center to a point in the landfill where the pressure gradient applied by the blower or compressor approaches zero). If field testing has not been performed, the Permittee shall use either the default values for k , L_o , and C_{NMOC} provided below or the alternative values from 40 CFR 60.35f.

[40 CFR 60.40f(a)(3)(iii)]

(a) $k = 0.02 \text{ year}^{-1}$ (for arid regions)

(b) $L_o = 170$ cubic meters per Mg

(c) $C_{NMOC} = 4,000 \text{ ppm}_v$ as hexane

- (iv) The mass of nondegradable solid waste contained within the given section may be subtracted from the total mass of the section when estimating emissions provided the nature, location, age, and amount of the nondegradable material is documented as provided in Condition II.D.3.a(3)(a) of Attachment "B".

[40 CFR 60.40f(a)(3)(iii)]

- b. The Permittee shall construct the gas collection devices using the following equipment or procedures:

[40 CFR 60.40f(b)]

- (1) The landfill gas extraction components shall be constructed of polyvinyl chloride (PVC), high density polyethylene (HDPE) pipe, fiberglass, stainless steel, or other nonporous corrosion resistant material of suitable dimensions to: Convey projected amounts of gases; withstand installation, static, and settlement forces; and withstand planned overburden or traffic loads.

[40 CFR 60.40f(b)(1)]

- (2) The collection system shall extend as necessary to comply with emission and migration standards. Collection devices such as wells and horizontal collectors shall be perforated to allow gas entry without head loss sufficient to impair performance across the intended extent of control. Perforations shall be situated with regard to the need to prevent excessive air infiltration.

[40 CFR 60.40f(b)(1)]

- (3) Vertical wells shall be placed so as not to endanger underlying liners and shall address the occurrence of water within the landfill.

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

[40 CFR 60.40f(b)(2)]

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

[40 CFR 60.40f(b)(3)]

- c. The Permittee shall convey the landfill gas to a control system in compliance with Condition II.C.1 of Attachment "B" through the collection header pipe(s). The gas mover equipment must be sized to handle the maximum gas generation flow rate expected over the intended use period of the gas moving equipment. The maximum flow rate must be in accordance with Condition II.E.1.a of Attachment "B". using the following procedures:

[40 CFR 60.40f(c) and (c)(2)]

- d. 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 60.34f and 63.1958(a)]

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

- e. The Permittee shall operate the collection system with negative pressure at each wellhead except under the following conditions:

[40 CFR 60.34f and 63.1958(b)]

- (1) A fire or increased well temperature. The Permittee shall record instances when positive pressure occurs in efforts to avoid a fire. These records must be submitted with the semi-annual reports as provided in Condition II.H.5;

[40 CFR 60.34f and 63.1958(b)(1)]

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

[40 CFR 60.34f and 63.1958(b)(2)]

II. LANDFILL REQUIREMENTS

- (3) A decommissioned well. A well may experience a static positive pressure after shut down to accommodate for declining flows. All design changes must be approved by the Director as specified in 40 CFR 63.1981(d)(2) (or 40 CFR 60.38f(d), as applicable). As provided in the collection and control system design plan, under 40 CFR 60.38(d)(2), a well may also be shut down to accommodate declining gas quality (*i.e.*, declining methane concentration);
[40 CFR 60.34f and 63.1958(b)(3), 40 CFR 60.38(d)(2)]
- (4) Intermittent operation. As provided in the collection and control system design plan, under 40 CFR 60.38(d)(2), the collection and control system may be operated intermittently to accommodate declining flows and/or gas quality. While the collection and control system is not being operated, a well may experience static positive pressure.
[40 CFR 60.38(d)(2)]
- f. The Permittee shall operate each interior wellhead in the collection system with a landfill gas temperature less than 62.8 degrees Celsius (145 degrees Fahrenheit).
[40 CFR 60.34f and 63.1958(c)(1)]
- (1) The Permittee may establish a higher operating temperature value at a particular well. A higher operating value demonstration must be submitted to the Director for approval and must include supporting data demonstrating that the elevated parameter neither causes fires nor significantly inhibits anaerobic decomposition by killing methanogens. The demonstration must satisfy both criteria in order to be approved (*i.e.*, neither causing fires nor killing methanogens is acceptable).
[40 CFR 60.34f and 63.1958(c)(2)]
- g. The Permittee shall operate the collection system so that the methane concentration is less than 500 parts per million (ppm) above background at the surface of the landfill.
[40 CFR 60.34f and 63.1958(d)(1)]
- (1) 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 no more than 30-meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover.
[40 CFR 60.34f and 63.1958(d)(1)]
- (2) The Permittee may establish an alternative traversing pattern that ensures equivalent coverage.
[40 CFR 60.34f and 63.1958(d)(1)]

- (3) The Permittee shall develop a surface monitoring design plan 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.
[40 CFR 60.34f and 63.1958(d)(1)]
- (4) The Permittee shall:
[40 CFR 60.34f and 63.1958(d)(2)]
- (a) Conduct surface testing using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in Condition II.E.4.
[40 CFR 60.34f and 63.1958(d)(2)(i)]
- (b) 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.
[40 CFR 60.34f and 63.1958(d)(2)(ii)]
- (c) Determine the latitude and longitude coordinates of each exceedance using an instrument with an accuracy of at least 4 meters. The coordinates must be in decimal degrees with at least five decimal places.
[40 CFR 60.34f and 63.1958(d)(2)(iii)]
- h. If monitoring demonstrates that the operational requirements in Conditions II.D.3.e through g are not met, corrective action must be taken as specified in Conditions II.E.1.c, II.E.1.d, or II.E.3, as applicable. If corrective actions are taken as specified in these conditions, the monitored exceedance is not a deviation of the operational requirements in Conditions II.D.3.d through (4).
[40 CFR 60.34f and 63.1958(g)]
4. Non-Enclosed Flare Control System
- a. The Permittee shall monitor the flare in accordance with the requirements in this permit to ensure that it is operated and maintained in conformance with its design.
[40 CFR 60.18(d)]
- b. *The Permittee shall operate the flare at all times when emissions may be vented to it. Flares shall be operated with a flame present at all times, as determined by the methods specified in Condition II.D.4.e(2).*
[40 CFR 60.18(c)(2) and (e), 60.34f, and 63.1958(f); A.A.C. R18-2-331.A.3.e]
[Material Permit Condition is indicated by underline and italics]
- c. The flare shall be designed for and operated with no visible emissions as determined by the methods specified in Condition II.D.4.e(1), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

[40 CFR 60.18(c)(1)]

d. The flare shall meet the following requirements for non-assisted flares:
 [40 CFR 60.18(c)(6)]

(1) The Permittee shall adhere to either the heat content specifications in Condition II.D.4.d(1)(c) and the maximum tip velocity specifications in Conditions II.D.4.d(1)(d) through (f), or to the requirements in Conditions II.D.4.d(1)(a) and (b).
 [40 CFR 60.18(c)(3)]

(a) Flares shall be used that have a diameter of 3 inches or greater, are non-assisted, have a hydrogen content of 8.0 percent (by volume), or greater, and are designed for and operated with an exit velocity less than 37.2 m/sec (122 ft/sec) and less than the velocity, V_{max} , as determined by the following equation:
 [40 CFR 60.18(c)(3)(i)(A)]

$$V_{max} = (X_{H_2} - K_1) \times K_2$$

Where:

V_{max} = Maximum permitted velocity, m/sec.

K_1 = Constant, 6.0 volume-percent hydrogen.

K_2 = Constant, 3.9(m/sec)/volume-percent hydrogen.

X_{H_2} = The volume-percent of hydrogen, on a wet basis, as calculated by using the American Society for Testing and Materials (ASTM) Method D1946-77. (Incorporated by reference as specified in 40 CFR 60.17).

(b) The actual exit velocity of a flare shall be determined by the method specified in Condition II.D.4.e(4).
 [40 CFR 60.18(c)(3)(i)(B)]

(c) Flares shall be used only with the net heating value of the gas being combusted being 7.45 MJ/scm (200 Btu/scf) or greater if the flare is non-assisted. The net heating value of the gas being combusted shall be determined by the methods specified in Condition II.D.4.e(3).
 [40 CFR 60.18(c)(3)(ii)]

(d) Non-assisted flares shall be designed for and operated with an exit velocity, as determined by the methods specified in Condition II.D.4.e(4), less than 18.3 m/sec (60 ft/sec), except as provided in Conditions II.D.4.d(1)(e) and (f).
 [40 CFR 60.18(c)(4)(i)]

- (e) Non-assisted flares designed for and operated with an exit velocity, as determined by the methods specified in Condition II.D.4.e(4), equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec) are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).

[40 CFR 60.18(c)(4)(ii)]

- (f) Non-assisted flares designed for and operated with an exit velocity, as determined by the methods specified in Condition II.D.4.e(4), less than the velocity, V_{max} , as determined by the method specified in Condition II.D.4.e(5), and less than 122 m/sec (400 ft/sec) are allowed.

[40 CFR 60.18(c)(4)(iii)]

e. Test Methods

- (1) Method 22 of Appendix A to 40 CFR Part 60 shall be used to determine the compliance of flares with Condition II.D.4.c. The observation period is 2 hours and shall be used according to Method 22.

[40 CFR 60.18(f)(1)]

- (2) The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.

[40 CFR 60.18(f)(2)]

- (3) The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

[40 CFR 60.18(f)(3)]

$$H_T = K \sum_{i=1}^n C_i H_i$$

Where:

H_T = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25 °C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 °C;

K = Constant, 1.74×10^{-7} (1/ppm)(g-mole/scm)(MJ/kcal) where the standard temperature for (g-mole/scm) is 20 °C;

C_i = Concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 and measured for hydrogen and carbon monoxide by ASTM D1946-77 or 90

II. LANDFILL REQUIREMENTS

(Reapproved 1994) (Incorporated by reference as specified in 40 CF 60.17); and

H_i = Net heat of combustion of sample component i , kcal/g mole at 25 °C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382-76 or 88 or D4809-95 (incorporated by reference as specified in 40 CFR 60.17) if published values are not available or cannot be calculated.

- (4) The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by EPA Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip.

[40 CFR 60.18(f)(4)]

- (5) The maximum permitted velocity, V_{max} , for flares complying with Condition II.D.4.d(1)(f) shall be determined by the following equation.

[40 CFR 60.18(f)(5)]

$$\log_{10}(V_{max}) = (H_T - 28.8)/31.7$$

Where:

V_{max} = Maximum permitted velocity, m/sec

28.8 = Constant

31.7 = Constant

H_T = The net heating value as determined in Condition II.D.4.e(3).

E. Compliance Provisions

1. Except as provided in 40 CFR 60.38f(d)(2) and 63.1981(d)(2), the specified methods in Conditions II.E.1.a through e of this section must be used to determine whether the gas collection system is in compliance with Condition II.C.1.

[40 CFR 60.36f and 63.1960(a)]

- a. For the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine compliance with Condition II.C.1.a, the Permittee shall use the equation in either Condition II.E.1.a(1) or (2) below. The Permittee may use another method to determine the maximum gas generation flow rate, if the method has been approved by the Director. The methane generation rate constant (k) and methane generation potential (L_0) 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 60.35(a)(5)

or 63.1959(a)(4), the value of k determined from the test must be used. A value of no more than 15 years must 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.

[40 CFR 60.36f and 63.1960(a)(1)]

- (1) For sites with unknown year-to-year solid waste acceptance rate:
[40 CFR 60.36f and 63.1960(a)(1)(i)]

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

Where:

Q_M = Maximum expected gas generation flow rate, m^3/yr .

L_o = Methane generation potential, m^3/Mg solid waste.

R = Average annual acceptance rate, Mg/yr .

k = Methane generation rate constant, $year^{-1}$.

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

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

2 = Constant.

- (2) For sites with known year-to-year solid waste acceptance rate:
[40 CFR 60.36f and 63.1960(a)(1)(ii)]

$$Q_M = \sum_{i=1}^n 2kL_oM_i(e^{-kt_i})$$

Where:

Q_M = Maximum expected gas generation flow rate, m^3/yr .

k = Methane generation rate constant, $year^{-1}$.

L_o = Methane generation potential, m^3/Mg solid waste.

M_i = Mass of solid waste in the i^{th} section, Mg .

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

- (3) 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 equation in either Condition II.E.1.a(1) or (2) above. 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 equation in either Condition II.E.1.a(1) or (2) or other methods must be used to predict the maximum expected gas generation rate over the intended period of use of the gas control system equipment.

[40 CFR 60.36f and 63.1960(a)(1)(iii)]

- b. For the purposes of determining sufficient density of gas collectors for compliance with Condition II.C.1.b, 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.

[40 CFR 60.36f and 63.1960(a)(2)]

- c. For the purpose of demonstrating whether the gas collection system flow rate is sufficient to determine compliance with Condition II.C.1.c, 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 Director for approval.

[40 CFR 60.36f and 63.1960(a)(3)]

- (1) If a positive pressure exists, the Permittee shall initiate action to correct the exceedance within 5 days, except for the four conditions allowed under Condition II.D.3.e.

[40 CFR 60.36f and 63.1960(a)(3)(i)]

- (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 Condition II.I.5.c.

[40 CFR 60.36f and 63.1960(a)(3)(i)(A)]

- (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 Condition

II.H.5.a(7) as part of the next semi-annual report. The Permittee shall keep records according to Condition II.I.5.d.

[40 CFR 60.36f and 63.1960(a)(3)(i)(B)]

- (c) If corrective action is expected to take longer than 120 days to complete after the initial exceedance, the owner or operator must submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the Director, according to Condition II.H.6. The Permittee shall keep records according to Condition II.I.5.e.

[40 CFR 60.36f and 63.1960(a)(3)(i)(C)]

- d. To demonstrate compliance with the operational standard for temperature in Condition II.D.3.f, 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 Condition II.D.3.f, action must be initiated to correct the exceedance within 5 days. Any attempted corrective measure must not cause exceedances of other operational or performance standards.

[40 CFR 60.36f and 63.1960(a)(4)(i)]

- (1) 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 Condition II.I.5.c.

[40 CFR 60.36f and 63.1960(a)(4)(i)(A)]

- (2) 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 Condition II.H.5.a(7) as part of the next semi-annual report, and shall keep records according to Condition II.I.5.d.

[40 CFR 60.36f and 63.1960(a)(4)(i)(B)]

- (3) 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 II.H.5.a(7) and II.H.6. The Permittee shall keep records according to Condition II.I.5.e.

[40 CFR 60.36f and 63.1960(a)(4)(i)(C)]

- (4) 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 Condition II.F.1.d(6) 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) shall be completed within 15 days.

[40 CFR 60.36f and 63.1960(a)(4)(i)(D)]

- e. To demonstrate compliance with Condition II.C.1.d through the use of a collection system not conforming to the specifications provided in Conditions II.D.3.a through c, the Permittee shall provide information satisfactory to the Director as specified in 40 CFR 60.38f(d)(3) and 63.1981(d)(3) demonstrating that off-site migration is being controlled.

[40 CFR 60.36f and 63.1960(a)(5)]

2. For purposes of compliance with Condition II.D.3.d, the Permittee shall place each well or design component as specified in the approved design plan as provided in 40 CFR 60.38f(d). Each well must 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 60.36f and 63.1960(b)]

- a. 5 years or more if active; or
b. 2 years or more if closed or at final grade.

3. The Permittee shall use the following procedures for compliance with the surface methane operational standard as provided in Condition II.D.3.g.

[40 CFR 60.36f and 63.1960(c)]

- a. After installation and startup of the gas 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 below in Condition II.E.3.e.

[40 CFR 60.36f and 63.1960(c)(1)]

- b. 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.

[40 CFR 60.36f and 63.1960(c)(2)]

- c. Surface emission monitoring shall be performed in accordance with Section 8.3.1 of EPA Method 21 of Appendix A-7 of 40 CFR Part 60,

except that the probe inlet must be placed within 5 to 10 centimeters of the ground. Monitoring must be performed during typical meteorological conditions.

[40 CFR 60.36f and 63.1960(c)(3)]

- d. Any reading of 500 ppm or more above background at any location shall be recorded as a monitored exceedance and the actions specified below in Conditions II.E.3.d(1) through (5) shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of Condition II.D.3.g.

[40 CFR 60.36f and 63.1960(c)(4)]

- (1) 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.

[40 CFR 60.36f and 63.1960(c)(4)(i)]

- (2) 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 must be re-monitored within 10 days of detecting the exceedance.

[40 CFR 60.36f and 63.1960(c)(4)(ii)]

- (3) If the re-monitoring of the location shows a second exceedance, additional corrective action shall be taken and the location must 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 below in Condition II.E.3.d(5) shall be taken, and no further monitoring of that location is required until the action specified in Condition II.E.3.d(5) has been taken.

[40 CFR 60.36f and 63.1960(c)(4)(iii)]

- (4) 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 Condition II.E.3.d(2) or (3) shall be re-monitored 1 month from the initial exceedance. If the 1-month re-monitoring shows a concentration less than 500 ppm 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 Condition II.E.3.d(3) or (5) shall be taken.

[40 CFR 60.36f and 63.1960(c)(4)(iv)]

- (5) For any location where monitored methane concentration equals or exceeds 500 ppm above background three times within a quarterly period, a new well or other collection device shall be installed within 120 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 Director for approval.

[40 CFR 60.36f and 63.1960(c)(4)(v)]

e. The Permittee shall implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis.

[40 CFR 60.36f and 63.1960(c)(5)]

4. To comply with the provisions in Condition II.E.3 above, the Permittee shall comply with the following instrumentation specifications and procedures for surface emission monitoring devices:

[40 CFR 60.36f and 63.1960(d)]

a. The portable analyzer shall meet the instrument specifications provided in Section 6 of EPA Method 21 of Appendix A of 40 CFR Part 60, except that “methane” replaces all references to “VOC”.

[40 CFR 60.36f and 63.1960(d)(1)]

b. The calibration gas shall be methane, diluted to a nominal concentration of 500 ppm in air.

[40 CFR 60.36f and 63.1960(d)(2)]

c. To meet the performance evaluation requirements in Section 8.1 of EPA Method 21 of Appendix A of 40 CFR Part 60, the instrument evaluation procedures of Section 8.1 of EPA Method 21 of Appendix A of 40 CFR Part 60 shall be used.

[40 CFR 60.36f and 63.1960(d)(3)]

d. The calibration procedures provided in Sections 8 and 10 of EPA Method 21 of Appendix A of 40 CFR Part 60 shall be followed immediately before commencing a surface monitoring survey.

[40 CFR 60.36f and 63.1960(d)(4)]

5. The provisions of Section II of this permit apply at all times, including periods of SSM. During periods of SSM, the Permittee shall comply with the work practice requirement specified in Condition II.D.2 in lieu of the compliance provisions in Section II.E of this permit.

[40 CFR 60.36f and 63.1960(e)(2)]

F. Monitoring of Operations

The Permittee shall meet the following requirements, except as provided in 40 CFR 60.38(d)(2) and 63.1981(d)(2):

[40 CFR 60.37f and 63.1961]

1. Active Collection System

The Permittee 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 60.37f and 63.1961(a); A.A.C. R18-2-331.A.3.c]

[Material Permit Condition is indicated by underline and italics]

II. LANDFILL REQUIREMENTS

- a. Measure the gauge pressure in the gas collection header on a monthly basis as provided in Condition II.E.1.c; and
[40 CFR 60.37f and 63.1961(a)(1)]
- b. Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as follows:
[40 CFR 60.37f and 63.1961(a)(2)]
- (1) The nitrogen level must be determined using EPA Method 3C of appendix A-2 to 40 CFR Part 60, unless an alternative test method is established as allowed by 40 CFR 60.38(d)(2) and 63.1981(d)(2).
[40 CFR 60.37f and 63.1961(a)(2)(i)]
- (2) Unless an alternative test method is established as allowed by 40 CFR 60.38(d)(2) and 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 40 CFR Part 60 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 40 CFR Part 60 or ASTM D6522-11 (if sample location is prior to combustion) except that:
[40 CFR 60.37f and 63.1961(a)(2)(ii)]
- (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.
- (3) A portable gas composition analyzer may be used to monitor the oxygen levels provided:
[40 CFR 60.37f and 63.1961(a)(2)(iii)]
- (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 40 CFR Part 60 or ASTM D6522-11 (incorporated by reference, see 40 CFR 63.14).
- c. The Permittee shall monitor temperature of the landfill gas on a monthly basis as provided in Condition II.D.3.f. The temperature measuring device must be calibrated annually using the procedure in Section 10.3 of EPA Method 2 of Appendix A-1 to 40 CFR Part 60. Keep records specified in Condition II.I.5.

II. LANDFILL REQUIREMENTS

[40 CFR 60.37f and 63.1961(a)(4)]

- d. Unless a higher operating temperature value has been approved by the Director as allowed under Condition II.D.3.f(1), 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:

[40 CFR 60.37f and 63.1961(a)(5)]

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

[40 CFR 60.37f and 63.1961(a)(5)(i)]

- (2) Monitor oxygen concentration as provided above in Condition II.F.1.b;

[40 CFR 60.37f and 63.1961(a)(5)(ii)]

- (3) Monitor temperature of the landfill gas at the wellhead as provided above in Condition II.F.1.c;

[40 CFR 60.37f and 63.1961(a)(5)(iii)]

- (4) Monitor temperature of the landfill gas every 10 vertical feet of the well as provided below in Condition II.F.1.e.

[40 CFR 60.37f and 63.1961(a)(5)(iv)]

- (5) Monitor the methane concentration with a methane meter using EPA Method 3C or EPA Method 18 of Appendix A-6 to 40 CFR Part 60, 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.

[40 CFR 60.37f and 63.1961(a)(5)(v)]

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

[40 CFR 60.37f and 63.1961(a)(5)(vi)]

- (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 40 CFR Part 60, or an equivalent method with a detection limit of at least 100 ppm_v of carbon monoxide in high concentrations of methane; or

40 CFR 60.37f and 63.1961(a)(5)(vi)(A)]

- (b) Collect and analyze the sample from the wellhead using EPA Method 10 of Appendix A-4 to 40 CFR Part 60 to measure carbon monoxide concentrations.

[40 CFR 60.37f and 63.1961(a)(5)(vi)(B)]

- (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 carbon monoxide reading at the wellhead.
[40 CFR 60.37f and 63.1961(a)(5)(vi)(C)]
- (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 a carbon monoxide value from the wellhead.
[40 CFR 60.37f and 63.1961(a)(5)(vi)(D)]
- (7) The enhanced monitoring shall begin 7 calendar days after the first measurement of landfill gas temperature greater than 62.8 degrees Celsius (145 degrees Fahrenheit); and
[40 CFR 60.37f and 63.1961(a)(5)(vii)]
- (8) The enhanced monitoring shall be conducted on a weekly basis. If four consecutive weekly carbon monoxide readings are under 100 ppm_v, then enhanced monitoring may be decreased to monthly. However, if carbon monoxide readings exceed 100 ppm_v again, the landfill must return to weekly monitoring.
[40 CFR 60.37f and 63.1961(a)(5)(viii)]
- (9) The enhanced monitoring 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).
[40 CFR 60.37f and 63.1961(a)(5)(ix)]
- e. 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.
[40 CFR 60.37f and 63.1961(a)(6)]

2. Non-Enclosed Flare Control System

The Permittee shall install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment:

[40 CFR 60.37f and 63.1961(c); A.A.C. R18-2-331.A.3.c]

[Material Permit Condition is indicated by underline and italics]

II. LANDFILL REQUIREMENTS

- a. *A heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame; and*

[40 CFR 60.37f and 63.1961(c)(1); A.A.C. R18-2-331.A.3.c]

[Material Permit Condition is indicated by underline and italics]

- b. *A device that records flow to the flare and bypass of the flare (if applicable). The Permittee shall:*

[40 CFR 60.37f and 63.1961(c)(2); A.A.C. R18-2-331.A.3.c]

[Material Permit Condition is indicated by underline and italics]

- (1) *Install, calibrate, and maintain a gas flow rate measuring device that records the flow to the control device at least every 15 minutes; and*

[40 CFR 60.37f and 63.1961(c)(2)(i); A.A.C. R18-2-331.A.3.c]

[Material Permit Condition is indicated by underline and italics]

- (2) 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.

[40 CFR 60.37f and 63.1961(c)(2)(ii)]

3. If the Permittee seeks to install a collection system that does not meet the specifications in Conditions II.D.3.a through c or seeks to monitor alternative parameters to those required by 40 CFR 60.35f, 63.1958, 63.1960, and 63.1961, the Permittee shall provide information satisfactory to the Director as provided in 40 CFR 60.38(d)(2) and (3) and 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 Director may specify additional appropriate monitoring procedures.

[40 CFR 60.37f and 63.1961(e)]

4. Surface Methane Monitoring

The Permittee shall monitor surface concentrations of methane according to the procedures in Condition II.E.3 and the instrument specifications in Condition II.E.4. 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 must be in decimal degrees with at least five decimal places. In the semi-annual report in Condition II.H.5, you must report the location of each exceedance of the 500-ppm methane concentration as provided in Condition II.D.3.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.

[40 CFR 60.37f and 63.1961(f)]

5. The monitoring requirements in Conditions II.F.1 and 2 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 is required to complete monitoring system repairs in response to monitoring system malfunctions and to return the monitoring system to operation as expeditiously as practicable.

[40 CFR 60.37f and 63.1961(h)]

6. The operational standards in Condition II.D.2, II.D.3.f, and II.D.3.g apply at all times.

[40 CFR 60.37f and 63.1961(h)]

G. Performance Testing Requirements

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

[40 CFR 60.35f(d)]

2. After the installation and startup of a collection and control system in compliance with 40 CFR Part 60, Subpart Cf, the Permittee shall calculate the NMOC emission rate for purposes of determining when the system can be capped, removed, or decommissioned as provided in Condition II.J.1 using the equation below. The Permittee must calculate the NMOC emission rate annually according to these procedures and submit a notification to ADEQ if the NMOC emission rate is equal to or greater than 50 MG/yr according to Condition II.H.1.

[40 CFR 60.35f(b) and 63.1935(a)(3); A.A.C. R18-2-306.A.3]

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

Where:

M_{NMOC} = Mass emission rate of NMOC, Mg per year.

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

C_{NMOC} = NMOC concentration, ppm_v as hexane.

- a. The flow rate of landfill gas, Q_{LFG} , must 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

II. LANDFILL REQUIREMENTS

the provisions of section 10 of Method 2E of Appendix A to 40 CFR Part 60.

[40 CFR 60.35f(b)(1)]

- b. The average NMOC concentration, C_{NMOC} , must be determined by collecting and analyzing landfill gas sampled from the common header pipe before the gas moving or condensate removal equipment using the procedures in Method 25 or Method 25C of Appendix A to 40 CFR Part 60. The sample location on the common header pipe must be before any condensate removal or other gas refining units. The Permittee shall divide the NMOC concentration from Method 25 or Method 25C by six to convert from C_{NMOC} as carbon to C_{NMOC} as hexane.

[40 CFR 60.35f(b)(2)]

- c. The Permittee may use another method to determine landfill gas flow rate if the method has been approved by the Director. The Permittee may use another method to determine NMOC concentration if the method has been approved by the EPA Administrator.

[40 CR 60.35f(b)(3)]

- (1) 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 Condition II.H.10.b.

[40 CFR 60.35f(b)(3)(i)]

3. Within 60 days after the date of completing each performance test (as defined in 40 CFR 60.18), the Permittee shall submit the results of the performance tests required by Conditions II.G.1 or 2, including any associated fuel analyses, according to Condition II.H.10.a.

[40 CFR 60.35f(d)(1)]

H. Reporting Requirements

1. The Permittee shall submit reports and notifications that are required to be submitted to the ADEQ Director by mail or electronically via email to airpermits@azdeq.gov.

[A.A.C. R18-2-306.A.5]

2. NMOC Emission Rate Notification

If the NMOC emission rate, recalculated annually according to Condition II.G.2, is equal to or above 50 MG/yr, the Permittee shall notify ADEQ and submit an application for a permit revision in order to incorporate applicable requirements of 40 CFR Part 63, Subpart AAAA into the permit.

[A.A.C. R18-2-306.A.5]

3. Revised Collection and Control System Design Plan

The Permittee shall submit a revised collection and control system design plan to the ADEQ Director for approval as follows:

[40 CFR 60.38f(e)]

- a. At least 90 days before expanding operations to an area not covered by the previously approved design plan.

[40 CFR 60.38f(e)(1)]

- b. 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 ADEQ Director according to 40 CFR 60.38f(d).

[40 CFR 60.38f(e)(2)]

4. Initial Performance Test Report

The Permittee shall include the following information with the initial performance test report required under 40 CFR 60.8:

[40 CFR 60.38f(i)]

- a. A diagram of the collection system showing collection system positioning including all wells, horizontal collectors, surface collectors, or other gas extraction devices, including the locations of any areas excluded from collection and the proposed sites for the future collection system expansion;

[40 CFR 60.38f(i)(1)]

- b. The data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and the gas mover equipment sizing are based;

[40 CFR 60.38f(i)(2)]

- c. The documentation of the presence of asbestos or nondegradable material for each area from which collection wells have been excluded based on the presence of asbestos or nondegradable material;

[40 CFR 60.38f(i)(3)]

- d. The sum of the gas generation flow rates for all areas from which collection wells have been excluded based on nonproductivity and the calculations of gas generation flow rate for each excluded area;

[40 CFR 60.38f(i)(4)]

- e. The provisions for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill; and

[40 CFR 60.38f(i)(5)]

- f. The provisions for the control of off-site migration.

[40 CFR 60.38f(i)(6)]

5. Semi-Annual Report

- a. The Permittee shall submit to the ADEQ Director and EPA Administrator semi-annual reports following the procedure specified in Conditions II.H.1 and II.H.10, respectively. The semi-annual reports shall contain the following information:
- [40 CFR 60.38f(h) and 63.1981(h)]
- (1) Number of times that applicable parameters monitored under Conditions II.D.3.e through g were exceeded and when the gas collection and control system was not operating under Condition II.D.2, including periods of SSM. For each instance, report the date, time, and duration of each exceedance.

[40 CFR 60.38f(h) and 63.1981(h)(1)]

 - (a) Where the Permittee seeks to demonstrate compliance with the operational standard for temperature in Condition II.D.3.f, provide a statement of the wellhead operational standard for temperature and, if applicable, oxygen the Permittee is complying with for the period covered by the report. Indicate the number of times each of those parameters monitored under Condition II.F.1.c were exceeded. For each instance, report the date, time, and duration of each exceedance.

[40 CFR 60.38f(h) and 63.1981(h)(1)(ii)]
 - (2) Description and duration of all periods when the gas stream was diverted from the non-enclosed flare control system through a bypass line or the indication of bypass flow as specified under Condition II.F.2.b.

[40 CFR 60.38f(h) and 63.1981(h)(2)]
 - (3) Description and duration of all periods when the non-enclosed flare control system was not operating and length of time the non-enclosed flare control system was not operating.

[40 CFR 60.38f(h) and 63.1981(h)(3)]
 - (4) All periods when the collection system was not operating.

[40 CFR 60.38f(h) and 63.1981(h)(4)]
 - (5) The location of each exceedance of the 500 parts per million methane concentration as provided in Condition II.D.3.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.

[40 CFR 60.38f(h) and 63.1981(h)(5)]
 - (6) The date of installation and the location of each well or collection system expansion added pursuant to Conditions II.E.1.c and d, II.E.2, and II.E.3.d.

[40 CFR 60.38f(h) and 63.1981 (h)(6)]

- (7) For any corrective action analysis for which corrective actions are required in Conditions II.E.1.c(1) or II.E.1.d 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.

[40 CFR 60.38f(h) and 63.1981(h)(7)]

- (8) If the Permittee is required to conduct enhanced monitoring in Conditions II.F.1.d and e, the Permittee shall include the results of all monitoring activities conducted during the period.

[40 CFR 60.38f(h) and 63.1981(h)(8)]

- (a) 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.

[40 CFR 60.38f(h) and 63.1981(h)(8)(i)]

- (b) 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.

[40 CFR 60.38f(h) and 63.1981(h)(8)(ii)]

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

[40 CFR 60.38f(h) and 63.1981(h)(8)(iii)]

b. Initial Semi-Annual Report

- (1) The initial semi-annual report must be submitted within 180 days of installation and startup of the collection and control system and shall include the initial performance test report required under 40 CFR 63.7, as applicable, unless the report of the results of the performance test has been submitted to the EPA via the EPA's CDX.

[40 CFR 60.38f(h) and 63.1981(h)]

- (2) In the initial 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.

[40 CFR 60.38f(h) and 63.1981(h)]

6. Corrective Action and the Corresponding Timeline

The Permittee shall submit information regarding corrective actions according to following requirements.

[40 CFR 60.38f(k) and 63.1981(j)]

- a. For corrective action that is required according to Condition II.E.1.c or d and is not completed within 60 days after the initial exceedance, the Permittee shall submit a notification to the ADEQ Director as soon as practicable but no later than 75 days after the first measurement of positive pressure or temperature exceedance.

[40 CFR 60.38f(k) and 63.1981(j)(1)]

- b. For corrective action that is required according to Condition II.E.1.c or d 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 ADEQ 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 ADEQ Director for the well under 40 CFR Part 60, Subpart Cf, 40 CFR Part 63, Subpart AAAA, or A.A.C. R18-2-731. The ADEQ Director must approve the plan for corrective action and the corresponding timeline.

[40 CFR 60.38f(k) and 63.1981(j)(2)]

7. 24-hour High Temperature Report

Where 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 ADEQ Director within 24 hours of the measurement unless a higher operating temperature value has been approved by the ADEQ Director for the well under 40 CFR Part 60, Subpart Cf, 40 CFR Part 63, Subpart AAAA, or A.A.C. R18-2-731.

[40 CFR 60.38f(n) and 63.1981(k)]

8. Closure Report

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

[40 CFR 60.38f(f)]

9. Equipment Removal Report

The Permittee shall submit an equipment removal report to the ADEQ Director 30 days prior to removal or cessation of operation of the control equipment.
[40 CFR 60.38f(g)]

- a. The equipment removal report must contain the following items:
[40 CFR 60.38(g)(1)]
- (1) A copy of the closure report submitted in accordance with Condition II.H.8; and
[40 CFR 60.38f(g)(1)(i)]
 - (2) A copy of the initial performance test report from Condition II.H.4 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 GCCS 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
[40 CFR 60.38f(g)(1)(ii)]
 - (3) 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
[40 CFR 60.38f(g)(1)(iii)]
- b. The Administrator may request such additional information as may be necessary to verify that all of the conditions for removal in Condition have been met.
[40 CFR 60.38(g)(2)]

10. Electronic Reporting Requirements

The Permittee shall submit reports electronically according to following requirements:
[40 CFR 60.38f(j) and 63.1981(l)]

- a. Within 60 days after the date of completing each performance test (as defined in 40 CFR 60.8), the Permittee shall submit the results of each performance test according to the following procedures:
[40 CFR 60.38f(j)(1)]

- (1) For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT Web site (<https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert>) at the time of the test, the Permittee shall submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>). Performance test data shall be submitted in a file format generated through the use of the EPA's ERT or an alternative file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT Web site, once the XML schema is available.

[40 CFR 60.38f(j)(1)(i)]

- (2) If the Permittee claims that some of the performance test information being submitted is confidential business information (CBI), the Permittee shall submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT Web site, including information claimed to be CBI, on a compact disc, flash drive or other commonly used electronic storage media to the EPA. The electronic media shall be clearly marked as CBI and mailed to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described above in Condition II.H.10.a(1).

[40 CFR 60.38f(j)(1)(i)]

- (3) For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the test, the Permittee shall submit the results of the performance test to the EPA Administrator at the address listed for Region IX EPA in 40 CFR 60.4 or 63.13.

[40 CFR 60.38f(j)(1)(ii)]

- b. The NMOC emission rate reports and semi-annual reports shall be electronically reported as a spreadsheet template upload/form to CEDRI. Each report required to be submitted using the procedures of this Condition shall be submitted to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.).

[40 CFR 60.38f(j)(2) and 63.1981(1)(2)]

- (1) The Permittee shall use the appropriate electronic report in CEDRI for 40 CFR Part 60, Subpart Cf or 40 CFR Part 63, Subpart AAAA, as applicable, or an alternate electronic file format consistent with the XML schema listed on the CEDRI Web site (<https://www.epa.gov/electronic-reporting-air-emissions/compliance-and-emissions-data-reporting-interface-cedri>). If the reporting forms specific to Subpart Cf or Subpart

AAAA are not available in CEDRI at the time that the report is due, the Permittee shall submit the report to the EPA Administrator at the address listed for Region IX EPA in 40 CFR Part 60.4 or 63.13.

- (2) Once the spreadsheet template upload/forms for the reports have been available in CEDRI for 90 calendar days, the Permittee shall begin submitting all subsequent reports via CEDRI.
- (3) The reports must be submitted by the deadlines specified in this permit, regardless of the method in which the reports are submitted.

I. Recordkeeping Requirements

1. Except as provided in 40 CFR 60.38(d)(2) and 63.1981(d)(2), the Permittee shall keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report that triggered 40 CFR 60.33f(e), 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 60.39f(a)]

2. Except as provided in 40 CFR 60.38(d)(2) and 63.1981(d)(2), once the collection and control system is installed, the Permittee shall keep up-to-date, readily accessible records for the life of the control system equipment of the data listed below in Conditions II.I.2.a and b, 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.
[40 CFR 60.39f(b)]

- a. Where the Permittee seeks to demonstrate compliance with Condition II.C.1:
[40 CFR 60.39f(b)(1)]

- (1) The maximum expected gas generation flow rate as calculated in Condition II.E.1. The Permittee may use another method to determine the maximum gas generation flow rate, if the method has been approved by the Director.
[40 CFR 60.39f(b)(1)(i)]

- (2) The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in Condition II.D.3.a.
[40 CFR 60.39f(b)(1)(ii)]

- b. Where the Permittee seeks to demonstrate compliance with Condition II.C.2 through use of a non-enclosed flare, the flare type (i.e., steam-assisted, air-assisted, or non-assisted), all visible emission readings, heat

content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in Condition II.D.4; and continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame or the flare flame is absent.

[40 CFR 60.39f(b)(4)]

3. Except as provided in 40 CFR 60.38(d)(2) and 63.1981(d)(2), once the collection and control system is installed, the Permittee shall keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in Section II.F 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.

[40 CFR 60.39f(c)]

- a. 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 Section II.F.

[40 CFR 60.39f(c)(2)]

- b. The Permittee shall keep up-to-date, readily accessible continuous records of the flame or flare pilot flame monitoring specified under Condition II.F.2, and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent.

[40 CFR 60.39f(c)(4)]

- c. The Permittee shall keep records of periods when the collection system or control device is not operating.

[40 CFR 60.39f(c)(5)]

- d. The Permittee shall keep records of 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.

[40 CFR 63.1983(c)(6); A.A.C. R18-2-306.A.4]

- e. In the event that an affected unit fails to meet an applicable standard in Condition II.D.2, the Permittee shall:

[40 CFR 63.1983(c)(7); A.A.C. R18-2-306.A.4]

- (1) For each failure to meet an applicable standard, record the date, time and duration of each failure and the cause of such events (including unknown cause, if applicable).

[40 CFR 63.1983(c)(7); A.A.C. R18-2-306.A.4]

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

[40 CFR 63.1983(c)(7)(ii); A.A.C. R18-2-306.A.4]

- (3) Record actions taken to minimize emissions in accordance with the general duty of Condition II.D.1 and any corrective actions

taken to return the affected unit to its normal or usual manner of operation.

[40 CFR 63.1983(c)(7)(iii); A.A.C. R18-2-306.A.4]

4. Except as provided in 40 CFR 60.38f(d)(2) and 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 on each collector that matches the labeling on the plot map.

[40 CFR 60.39f(d)]

- a. The Permittee shall keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under Condition II.E.2.

[40 CFR 60.39f(d)(1)]

- b. The Permittee shall keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste excluded from collection as provided in Condition II.D.3.a(3)(a) as well as any nonproductive areas excluded from collection as provided in Condition II.D.3.a(3)(b).

[40 CFR 60.39f(d)(2)]

5. Except as provided in 40 CFR 60.38f(d)(2) and 63.1981(d)(2), the Permittee shall keep for at least 5 years up-to-date, readily accessible records of the following.

[40 CFR 60.39f(e) and 63.1983(e)]

- a. All collection and control system exceedances of the operational standards in Conditions II.D.2, II.D.3.d through h, and II.D.4.b, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance.

[40 CFR 63.1983(e)(1)]

- b. Records of each wellhead temperature monitoring value of 62.8 degrees Celsius (145 degrees Fahrenheit) or above, each wellhead nitrogen level at or above 20 percent, and each wellhead oxygen level at or above 5 percent.

[40 CFR 63.1983(e)(2) and (2)(i)]

- (1) If the Permittee is required to conduct the enhanced monitoring provisions in Condition II.F.1.d, the Permittee shall also keep records of all enhanced monitoring activities.

[40 CFR 63.1983(e)(2)(ii)]

- (2) If the Permittee is required to submit the 24-hour high temperature report in Condition II.H.7, the Permittee shall also keep a record of the email transmission.

[40 CFR 63.1983(e)(2)(iii)]

- c. For any root cause analysis for which corrective actions are required in Conditions II.E.1.c(1)(a) or II.E.1.d(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.

[40 CFR 63.1983(e)(3)]

- d. For any root cause analysis for which corrective actions are required in Conditions II.E.1.c(1)(b) and II.E.1.d(2), 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.

[40 CFR 63.1983(e)(4)]

- e. For any root cause analysis for which corrective actions are required in Conditions II.E.1.c(1)(c) and II.E.1.d(3), 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.

[40 CFR 63.1983(e)(5)]

- f. Records of the date upon which the Permittee started complying with the provisions in 40 CFR 63.1958, 63.1960, and 63.1961.

[40 CFR 60.39f(e)(6)]

6. Except as provided in 40 CFR 60.38f(d)(2) and 63.1981(d)(2), the Permittee 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 Condition II.F.1.a through e.

[40 CFR 60.39f(h)]

7. The Permittee shall keep records of the NMOC emission rate, recalculated annually according to Condition II.G.2.

[A.A.C. R18-2-306.A.4]

8. Any records required to be maintained by this Section that are submitted electronically via the EPA's CDX may be maintained in electronic format.

[40 CFR 60.39f(i)]

J. Collection and Control System Removal Criteria

1. The collection and control system may be capped, removed, or decommissioned if the following criteria are met:

[40 CFR 60.33f(f)]

- a. The landfill is a closed landfill (as defined in 40 CFR 60.41f. A closure report must be submitted to the ADEQ Director and EPA Administrator as provided in Conditions II.H.1 and II.H.8, respectively.

III. ASBESTOS

[40 CFR 60.33f(f)(1)]

- b. The collection and control system has been in operation a minimum of 15 years or the Permittee demonstrates that the GCCS will be unable to operate for 15 years due to declining gas flow.

[40 CFR 60.33f(f)(2)]

- c. Following the procedures specified in Condition II.G.2, the calculated NMOC emission rate at the landfill is less than 34 megagrams per year on three successive test dates. The test dates must be no less than 90 days apart, and no more than 180 days apart.

[40 CFR 60.33f(f)(3)]

K. Permit Shield

Compliance with this Section shall be deemed compliance with A.A.C. R18-2-731, and 40 CFR 60.18(c), (d), (e), & (f), 60.32f, 60.33f(a), (b)(1), (b)(2), (c)(1), & (e), 60.34f, 60.35f(b) & (d), 60.36f, 60.37f, 60.38f(c), (e), (f), (g), & (j), 60.39f(a), (b), (c), (d), (e), (h), & (i), 60.40f(a), (b), & (c), 63.1955(c), 63.1958(a), (b), (c), (d), & (g), 63.1960(a), (b), (c), (d), & (e), 63.1961(a), (c), & (e), 1981(h), (j), (k) & (l), and 63.1983(c)(6) & (7).

[A.A.C. R18-2-325]

III. ASBESTOS

The provisions of this Section only apply if asbestos-containing waste materials, as defined in 40 CFR 61.141, are accepted at the landfill from sources covered by 40 CFR 61.149 (asbestos mills), 40 CFR 61.150 (demolition, renovation, fabricating and manufacturing), or 40 CFR 61.155 (asbestos conversion operations).

[40 CFR 61.154]

A. Emission and Operational Standards

The Permittee shall meet these requirements:

[40 CFR 61.154]

1. Either there must be no visible emissions to the outside air from any active waste disposal site where asbestos-containing waste material has been deposited, or the requirements of Conditions III.A.3 and 4 be met.
2. Unless a natural barrier adequately deters access by the general public, either warning signs and fencing must be installed and maintained as follows, or the requirements of Condition III.A.3.a.

[40 CFR 61.154(b)]

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

[40 CFR 61.154(b)(1)]

III. ASBESTOS

- (1) Be posted in such a manner and location that a person can easily read the legend; and
 [40 CFR 61.154(b)(1)(i)]
- (2) Conform to the requirements of 51 cm x 36 cm (20" x 14") upright format signs specified in 29 CFR 1910.145(d)(4) and this paragraph; and
 [40 CFR 61.154(b)(1)(ii)]
- (3) 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.

- b. The perimeter of the disposal site must be fenced in a manner adequate to deter access by the general public.
 [40 CFR 61.154(b)(2)]
 - c. Upon request and supply of appropriate information, the Director will determine whether a fence or a natural barrier adequately deters access by the general public.
 [40 CFR 61.154(b)(3)]
3. Rather than meet the no visible emission requirements of Condition III.A.1, at the end of each operating day, or at least once every 24-hour day 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:
 [40 CFR 61.154(c)]
- a. Be covered with at least 15 cm (6 in) of compacted nonasbestos-containing material, or
 [40 CFR 61.154(c)(1)]
 - b. 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

III. ASBESTOS

prior approval by the Director. For purposes of this paragraph, any used, spent, or other waste oil is not considered a dust suppression agent.

[40 CFR 61.154(c)(2)]

4. Rather than meet the no visible emission requirements of Condition III.A.1, use an alternative emissions control method that has received prior written approval by the Director according to the procedures described in the 40 CFR 61.149(c)(2).

[40 CFR 61.154(d)]

B. Monitoring/Recordkeeping

1. For all asbestos-containing waste material received, the Permittee of the active waste disposal site shall:

[40 CFR 61.154(e)]

- a. Maintain waste shipment records, using a form similar to the form shown in Figure 4 in 40 CFR Part 61, Subpart M, and include the following information:

[40 CFR 61.154(e)(1)]

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

[40 CFR 61.154(e)(1)(i)]

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

[40 CFR 61.154(e)(1)(ii)]

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

[40 CFR 61.154(e)(1)(iii)]

- (4) The presence of improperly enclosed or uncovered waste, or an asbestos-containing waste material not sealed in leak-tight containers. Additionally, the Permittee shall comply with the reporting requirements in Condition III.C.1.

[40 CFR 61.154(e)(1)(iv)]

- (5) The date of receipt.

[40 CFR 61.154(e)(1)(v)]

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

[40 CFR 61.154(e)(2)]

- c. Upon discovering a discrepancy between the quantity of waste designated on the waste shipment records and the quantity actually received, attempt to reconcile the discrepancy with a waste generator. If the discrepancy is not resolved within 15 days after receiving the waste, then the Permittee shall comply with the reporting requirements in Condition III.C.2.

[40 CFR 61.154(e)(3)]

III. ASBESTOS

- d. Retain a copy of all records and reports required by Condition III.B.1 for at least 2 years.

[40 CFR 61.154(e)(4)]

2. The Permittee shall maintain, until closure, records of the location, depth and area, and quantity in cubic meters (cubic yards) of asbestos-containing material within the disposal site on a map or diagram of the disposal area.

[40 CFR 61.154(f)]

3. The Permittee shall submit to the Director, upon closure of the facility, a copy of records of asbestos waste disposal locations and quantities.

[40 CFR 61.154(h)]

4. The Permittee shall furnish upon request, and make available during normal business hours for inspection by the Director, all records required under Section III.B of Attachment "B".

[40 CFR 61.154(i)]

C. Reporting

1. If the Permittee discovers improperly enclosed or uncovered asbestos-containing waste materials, or any asbestos-containing waste material not sealed in leak-tight containers, the Permittee shall by the following working day report in writing to the Director, as well as to any additional local or EPA Regional Office responsible for administering the asbestos NESHAP program for the waste generator (identified in the waste shipment record), and, if different, the local, State, or EPA Regional Office responsible for administering the asbestos NESHAP program for the disposal site, the presence of a significant amount of improperly enclosed or uncovered waste. The Permittee shall submit a copy of the waste shipment record along with the report.

[40 CFR 61.154(e)(1)(iv)]

2. If the Permittee discovers a discrepancy between the quantity of waste designated on the waste shipment records and the quantity actually received, and if the discrepancy is not resolved within 15 days after receiving the waste in accordance with Condition III.B.1.c, the Permittee shall immediately report in writing to the Director as well as to any additional local, State, or EPA Regional Office responsible for administering the asbestos NESHAP program for the waste generator (identified in the waste shipment record), and, if different, the local, State, or EPA Regional Office responsible for administering the asbestos NESHAP program for the disposal site. The Permittee shall describe the discrepancy and the attempts to reconcile it, and submit a copy of the waste shipment record along with the report.

[40 CFR 61.154(e)(3)]

3. Upon closure of the facility, the Permittee shall comply with all the provisions of 40 CFR 61.151.

[40 CFR 61.154(g)]

4. The Permittee shall submit to the Director, upon closure of the facility, a copy of records of asbestos waste disposal locations and quantities.

[40 CFR 61.154(h)]

5. 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. Include the following information in the notice:

[40 CFR 61.154(j)]

- a. Scheduled starting and completion dates.

[40 CFR 61.154(j)(1)]

- b. Reason for disturbing the waste.

[40 CFR 61.154(j)(2)]

- 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.

[40 CFR 61.154(j)(3)]

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

[40 CFR 61.154(j)(4)]

D. Permit Shield

Compliance with this Section shall be deemed compliance with 40 CFR 61.154.

[A.A.C. R18-2-325]

IV. NON-EMERGENCY COMPRESSION IGNITION (CI) INTERNAL COMBUSTION ENGINE (ICE)

A. Applicability

This Section is applicable to the diesel generator (Equipment ID: ID-6) listed in the Equipment List in Attachment "C".

B. New Source Performance Standards (NSPS) Under 40 CFR Part 60, Subpart IIII for Stationary Non-Emergency CI ICE

1. General Requirements

a. Fuel Requirements

- (1) The Permittee shall only use diesel fuel in the engine that meets the following requirements:

- (a) Sulfur content: 15 ppm maximum; and

- (b) Either a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent.
[40 CFR 60.4207(b) and 1039.305]

b. Operational Requirements

The Permittee shall comply with the following requirements, except as permitted in Condition IV.B.4.b:

- (1) The Permittee shall operate and maintain the CI ICE and the control device according to the manufacturer's written instructions, over the entire life of the engine.
[40 CFR 60.4211(a)(1), 60.4206]
- (2) The Permittee shall only change those engine settings that are permitted by the manufacturer.
[40 CFR 60.4211(a)(2)]
- (3) The Permittee shall meet the requirements of 40 CFR Part 1068, as they apply.
[40 CFR 60.4211(a)(3)]

2. Emissions Standards

- a. The Permittee shall comply with the following Tier 4 emission standards for new engines with a rating greater than or equal to 130 kW and less than or equal to 560 kW:
- (1) 0.02 g/kW-hr particulate matter (PM)
- (2) 0.40 g/kW-hr nitrous oxides (NO_x)
- (3) 0.19 g/kW-hr non-methane hydrocarbons (NMHC)
- (4) 3.5 g/kW-hr carbon monoxide (CO)
[40 CFR 60.4201(a), 60.4204(b), and 1039.101]

3. Monitoring Requirements

The diesel particulate filter must be installed with a backpressure monitor that notifies the Permittee when the high backpressure limit of the engine is approached.

[40 CFR 60.4209(b)]

4. Compliance Requirements

- a. The Permittee shall comply with the emission standards in Condition IV.B.2.a above by purchasing an engine certified to the those emission standards. The engine shall be installed and configured according to the manufacturer's specifications, except as permitted below in Condition IV.B.4.b.

[40 CFR 60.4211(c)]

- b. If the Permittee does not install, configure, operate, and maintain the engine and control device according to the manufacturer's emission-related written instructions, or changes emission-related settings in a way that is not permitted by the manufacturer, the Permittee shall demonstrate compliance by keeping a maintenance plan and records of conducted maintenance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee shall conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after the Permittee changes emission-related settings in a way that is not permitted by the manufacturer. Performance tests shall be conducted in accordance with 40 CFR 60.4212(a) and (b).

[60 CFR 60.4211(g) and 60.4212(a) & (b)]

5. Recordkeeping Requirements

- a. The Permittee shall keep records of fuel supplier specifications. The specifications shall contain information regarding the name of fuel supplier, sulfur content, and cetane index or aromatic content in the fuel. These records shall be made available to ADEQ upon request.

[A.A.C. R18-2-306.A.3.c]

- b. A copy of the engine instructions or procedures shall be kept onsite and made available to ADEQ upon request.

[A.A.C. R18-2-306.A.3]

- c. The Permittee shall maintain a copy of engine certifications or other documentation demonstrating that the engine complies with the applicable standards and shall make the documentation available to ADEQ upon request.

- d. [A.A.C. R18-2-306.A.4]The Permittee shall keep records of any corrective action taken after the backpressure monitor has notified the Permittee that the high backpressure limit of the engine is approached.

[40 CFR 60.4214(c)]

6. Permit Shield

Compliance with this Section shall be deemed compliance with 40 CFR 60.4201(a), 60.4204(b), 60.4206, 60.4207(b), 60.4209(b), 60.4211(a), (c), & (g), 60.4212(a) & (b), 60.4214(c), 1039.101, and 1039.305.

[A.A.C. R18-2-325]

C. National Emission Standards for Hazardous Air Pollutants (NESHAP) Under 40 CFR Part 63, Subpart ZZZZ NESHAP Requirements for Stationary Non-Emergency Reciprocating ICE

1. Compliance Requirements

The Permittee shall meet the requirements of 40 CFR 63 Subpart ZZZZ by meeting the requirements of 40 CFR Part 60, Subpart IIII for compression ignition engines (Condition IV.B). No further requirements apply for such engines under 40 CFR 63 Subpart ZZZZ.

[40 CFR 63.6590(c)(1)]

2. Permit Shield

Compliance with this Section shall be deemed compliance with 40 CFR 63.6590(c).

[A.A.C. R18-2-325]

V. FUGITIVE DUST REQUIREMENTS

A. Applicability

Section IV.C applies to any non-point source of fugitive dust in the facility.

B. Particulate Matter and Opacity

Open Areas, Roadways & Streets, Storage Piles, and Material Handling

1. Emission Limitations and Standards

a. Opacity of emissions from any fugitive dust non-point source shall not be greater than 40%.

[A.A.C. R18-2-614]

b. The Permittee shall employ the following reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne:

(1) For a building or its appurtenances, or a building or subdivision site, or a driveway, or a parking area, or a vacant lot or sales lot, or an urban or suburban open area to be constructed, used, altered, repaired, demolished, cleared, or leveled, or the earth to be moved or excavated, keep dust and other types of air contaminants to a minimum by good modern practices such as using an approved dust suppressant or adhesive soil stabilizer, paving, covering, landscaping, continuous wetting, detouring, barring access, or other acceptable means;

[A.A.C. R18-2-604.A]

(2) Keep dust to a minimum from vacant lots or an urban or suburban open area where motor vehicular activity occurs by using an

approved dust suppressant, or adhesive soil stabilizer, or by paving, or by barring access to the property, or by other acceptable means;

[A.A.C. R18-2-604.B]

- (3) Keep dust and other particulates to a minimum by employing dust suppressants, temporary paving, detouring, wetting down or by other reasonable means when a roadway or alley is used, repaired, constructed, or reconstructed;

[A.A.C. R18-2-605.A]

- (4) Take reasonable precautions, such as wetting, applying dust suppressants, or covering the load when transporting material likely to give rise to airborne dust. Earth or other material that is deposited by trucking or earth moving equipment shall be removed from paved streets by the person responsible for such deposits;

[A.A.C. R18-2-605.B]

- (5) Take reasonable precautions, such as the use of spray bars, wetting agents, dust suppressants, covering the load, and hoods when crushing, screening, handling, transporting or conveying of materials or other operations likely to result in significant amounts of airborne dust;

[A.A.C. R18-2-606]

- (6) Take reasonable precautions such as chemical stabilization, wetting, or covering when organic or inorganic dust producing material is being stacked, piled, or otherwise stored;

[A.A.C. R18-2-607.A]

- (7) Operate stacking and reclaiming machinery utilized at storage piles at all times with a minimum fall of material, or with the use of spray bars and wetting agents;

[A.A.C. R18-2-607.B]

- (8) Any other method as proposed by the Permittee and approved by the Director.

[A.A.C. R18-2-306.A.3.c]

2. Air Pollution Control Requirements

Unpaved Roads and Storage Piles

Water, or an equivalent control, shall be used to control visible emissions from unpaved roads and storage piles.

[A.A.C. R18-2-306.A.2 and -331.A.3.d]

[Material Permit Condition is indicated by underline and italics]

3. Monitoring and Recordkeeping Requirements

VI. OTHER PERIODIC ACTIVITIES

- a. The Permittee shall maintain records of the dates on which any of the activities listed in Condition V.B.1.b above were performed and the control measures that were adopted.

[A.A.C. R18-2-306.A.3.c]

- b. Opacity Monitoring Requirements

- (1) Every month, the Permittee shall monitor visible emissions from fugitive sources in accordance with Condition I.A of Attachment :”B”.

[A.A.C. R18-2-306.A.3.c]

- (2) The Permittee shall follow a Department-approved observation plan to monitor visible emissions from fugitive dust sources at the facility. The observation plan shall identify a central lookout station or multiple observation points, as appropriate, from where the fugitive dust source opacity will be monitored. When multiple observation points are used, all the fugitive dust sources associated with each observation point shall be specifically identified within the plan.

[A.A.C. R18-2-306.A.3.c]

C. Permit Shield

Compliance with Section II shall be deemed compliance with A.A.C. R18-2-604, -605, -606, -607, and -614.

[A.A.C. R18-2-325]

VI. OTHER PERIODIC ACTIVITIES

A. Abrasive Blasting

1. Particulate Matter and Opacity

a. Emission Limitations/Standards

The Permittee shall not cause or allow sandblasting or other abrasive blasting without minimizing dust emissions to the atmosphere through the use of good modern practices. Good modern practices include:

[A.A.C. R18-2-726]

- (1) Wet blasting;
- (2) Effective enclosures with necessary dust collecting equipment; or
- (3) Any other method approved by the Director.

b. Opacity

The Permittee shall not cause, allow or permit visible emissions from sandblasting or other abrasive blasting operations in excess of 20% opacity.

[A.A.C. R18-2-702.B.3]

2. Monitoring and Recordkeeping Requirement

Each time an abrasive blasting project is conducted, the Permittee shall make a record of the following:

[A.A.C. R18-2-306.A.3.c]

- a. The date the project was conducted;
- b. The duration of the project; and
- c. Type of control measures employed.

3. Permit Shield

Compliance with Condition VI.A.1 shall be deemed compliance with A.A.C. R18-2-702.B.3 and -726.

[A.A.C.R18-2-325]

B. Use of Paints

1. Volatile Organic Compounds

a. Emission Limitations/Standards

While performing spray painting operations, the Permittee shall comply with the following requirements:

- (1) The Permittee shall not conduct or cause to be conducted any spray painting operation without minimizing organic solvent emissions. Such operations, other than architectural coating and spot painting, shall be conducted in an enclosed area equipped with controls containing no less than 96 percent of the overspray.

[A.A.C.R18-2-727.A]

- (2) The Permittee or their designated contractor shall not either:

[A.A.C.R18-2-727.B]

- (a) Employ, apply, evaporate, or dry any architectural coating containing photochemically reactive solvents for industrial or commercial purposes; or
- (b) Thin or dilute any architectural coating with a photochemically reactive solvent.
- (3) For the purposes of Condition VI.A.1.a(2), a photochemically reactive solvent shall be any solvent with an aggregate of more

VI. OTHER PERIODIC ACTIVITIES

than 20 percent of its total volume composed of the chemical compounds classified in Conditions (a) thru (c) below, or which exceeds any of the following percentage composition limitations, referred to the total volume of solvent:

[A.A.C.R18-2-727.C]

- (a) A combination of the following types of compounds having an olefinic or cyclo-olefinic type of unsaturation- hydrocarbons, alcohols, aldehydes, esters, ethers, or ketones: 5 percent.
 - (b) A combination of aromatic compounds with eight or more carbon atoms to the molecule except ethylbenzene: 8 percent.
 - (c) A combination of ethylbenzene, ketones having branched hydrocarbon structures, trichloroethylene or toluene: 20 percent.
- (4) Whenever any organic solvent or any constituent of an organic solvent may be classified from its chemical structure into more than one of the groups of organic compounds described in Condition VI.B.1.a(3), it shall be considered to be a member of the group having the least allowable percent of the total volume of solvents.

[A.A.C.R18-2-727.D]

b. Monitoring and Recordkeeping Requirements

[A.A.C. R18-2-306.A.3.c]

- (1) Each time a spray painting project is conducted, the Permittee shall make a record of the following:
 - (a) The date the project was conducted;
 - (b) The duration of the project;
 - (c) Type of control measures employed;
 - (d) Safety Data Sheets (SDS) for all paints and solvents used in the project; and
 - (e) The amount of paint consumed during the project.
- (2) Architectural coating and spot painting projects shall be exempt from the recordkeeping requirements of Condition VI.B.1.b(1).

c. Permit Shield

VI. OTHER PERIODIC ACTIVITIES

Compliance with Condition VI.B.1.a shall be deemed compliance with A.A.C.R18-2-727.

[A.A.C.R18-2-325]

2. Opacity

a. Emission Limitation/Standard

The Permittee shall not cause, allow or permit visible emissions from painting operations in excess of 20% opacity.

[A.A.C. R18-2-702.B.3]

b. Permit Shield

Compliance with Condition VI.B.2.a shall be deemed compliance with A.A.C.R18-2-702.B.3.

[A.A.C. R18-2-325]

C. Demolition/Renovation - Hazardous Air Pollutants

1. Emission Limitation/Standard

The Permittee shall comply with all of the requirements of 40 CFR 61 Subpart M (National Emissions Standards for Hazardous Air Pollutants - Asbestos).

[A.A.C. R18-2-1101.A.12]

2. Monitoring and Recordkeeping Requirements

The Permittee shall keep all required records in a file. The required records shall include the "NESHAP Notification for Renovation and Demolition Activities" form and all supporting documents.

[A.A.C. R18-2-306.A.3.c]

3. Permit Shield

Compliance with Condition VI.C.1 shall be deemed compliance with A.A.C. R18-2-1101.A.12.

[A.A.C. R18-2-325]

ATTACHMENT "C": EQUIPMENT LIST

ATTACHMENT "C": EQUIPMENT LIST

EQUIPMENT TYPE	MAX. CAPACITY	MAKE	MODEL	SERIAL NUMBER	INSTALLATION / MFG. DATE	EQUIPMENT ID NUMBER	A.A.C. / NSPS / NESHAP
Landfill	32,765,983 cubic yards	N/A	N/A	N/A	1993	ID-1	A.A.C. R18-2-731; NSPS Subpart Cf; NESHAP Subpart AAAA
Flare (Proposed)	21 MMBtu/hr	Undetermined	Undetermined	Undetermined	Undetermined	007-1	A.A.C. R18-2-731; NSPS Subpart Cf; NESHAP Subpart AAAA
Generator Non-Emergency	240 hp	MultiQuip	6068HFG08	7601056	August 2014	ID-6	NSPS Subpart III; NESHAP Subpart ZZZZ