STATE OF MISSISSIPPI
AIR POLLUTION CONTROL
TITLE V PERMIT

TO OPERATE AIR EMISSIONS EQUIPMENT

THIS CERTIFIES THAT

NCL Waste LLC, North County Line Landfill
2858 North County Line Road
Ridgeland, Mississippi
Madison County

has been granted permission to operate air emissions equipment in accordance with emission limitations, monitoring requirements and conditions set forth herein. This permit is issued in accordance with Title V of the Federal Clean Air Act (42 U.S.C.A. § 7401 - 7671) and the provisions of the Mississippi Air and Water Pollution Control Law (Section 49-17-1 et. seq., Mississippi Code of 1972), and the regulations and standards adopted and promulgated thereunder.

Permit Issued: _____

Effective Date: As specified herein.

MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD

_____

AUTHORIZED SIGNATURE
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Expires:[Date not to exceed 5 years from issuance] **Permit No.: 1720-00088**

Draft/Proposed

TABLE OF CONTENTS

SECTION 1. GENERAL CONDITIONS 3
SECTION 2. EMISSION POINTS & POLLUTION CONTROL DEVICES 14
SECTION 3. EMISSION LIMITATIONS & STANDARDS 15
SECTION 4. COMPLIANCE SCHEDULE 36
SECTION 5. MONITORING, RECORDKEEPING & REPORTING REQUIREMENTS 37
SECTION 6. ALTERNATIVE OPERATING SCENARIOS 66
SECTION 7. TITLE VI REQUIREMENTS 67

APPENDIX A LIST OF ABBREVIATIONS USED IN THIS PERMIT

OTHER RELATED DOCUMENTS

Available at https://www.ecfr.gov/cgi-bin/ECFR

40 CFR 60, SUBPART A – GENERAL PROVISIONS

40 CFR 60, SUBPART XXX – STANDARDS OF PERFORMANCE FOR MUNICIPAL SOLID WASTE LANDFILLS THAT COMMENCED CONSTRUCTION, RECONSTRUCTION, OR MODIFICATION AFTER JULY 17, 2014.

40 CFR 61, SUBPART M – NATIONAL EMISSIONS STANDARDS FOR ASBESTOS

40 CFR 63, SUBPART A – GENERAL PROVISIONS

40 CFR 63, SUBPART AAAA – NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS: MUNICIPAL SOLID WASTE LANDFILLS

SECTION 1. GENERAL CONDITIONS

1.1 The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Federal Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(6)(a).)

1.2 It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(6)(b).)

1.3 This permit and/or any part thereof may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(6)(c).)

1.4 Prior to its expiration, this permit may be reopened in accordance with the provisions listed below.

(a) This permit shall be reopened and revised under any of the following circumstances:

(1) Additional applicable requirements under the Federal Act become applicable to a major Title V source with a remaining permit term of 3 or more years. Such a 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.

(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 permit.

(3) The Permit Board or EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emission

standards or other terms or conditions of the permit.

(4) The Administrator or the Permit Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

(b) Proceedings to reopen and issue this permit shall follow the same procedures as apply to initial permit issuance and shall only affect those parts of the permit for which cause to reopen exists. Such reopening shall be made as expeditiously as practicable.

(c) Reopenings shall not be initiated before a notice of such intent is provided to the Title V source by the DEQ at least 30 days in advance of the date that the permit is to be reopened, except that the Permit Board may provide a shorter time period in the case of an emergency.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.4.G.)

1.5 The permittee shall furnish to the DEQ within a reasonable time any information the DEQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the DEQ copies of records required to be kept by the permittee or, for information to be confidential, the permittee shall furnish such records to DEQ along with a claim of confidentiality. The permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(6)(e).)

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

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(6)(d).)

1.7 The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstances, is challenged or held invalid, the validity of the remaining permit provisions and/or portions thereof or their application to other persons or sets of circumstances, shall not be affected thereby.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(5).)

1.8 The permittee shall pay to the DEQ an annual permit fee. The amount of fee shall be determined each year based on the provisions of regulated pollutants for fee purposes and the fee schedule specified in the Commission on Environmental Quality's order which shall be issued in accordance with the procedure outlined in Regulation 11 Miss. Admin. Code Pt. 2, Ch. 6.

(a) For purposes of fee assessment and collection, the permittee shall elect for actual or

allowable emissions to be used in determining the annual quantity of emissions unless the Commission determines by order that the method chosen by the applicant for calculating actual emissions fails to reasonably represent actual emissions. Actual emissions shall be calculated using emission monitoring data or direct emissions measurements for the pollutant(s); mass balance calculations such as the amounts of the pollutant(s) entering and leaving process equipment and where mass balance calculations can be supported by direct measurement of process parameters, such direct measurement data shall be supplied; published emission factors such as those relating release quantities to throughput or equipment type (e.g., air emission factors); or other approaches such as engineering calculations (e.g., estimating volatilization using published mathematical formulas) or best engineering judgments where such judgments are derived from process and/or emission data which supports the estimates of maximum actual emission.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.A(2).)

(b) If the Commission determines that there is not sufficient information available on a facility's emissions, the determination of the fee shall be based upon the permitted allowable emissions until such time as an adequate determination of actual emissions is made. Such determination may be made anytime within one year of the submittal of actual emissions data by the permittee.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.A(2).)

(c) If at any time within the year the Commission determines that the information submitted by the permittee on actual emissions is insufficient or incorrect, the permittee will be notified of the deficiencies and the adjusted fee schedule. Past due fees from the adjusted fee schedule will be paid on the next scheduled quarterly payment time.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.D(2).)

(d) The fee shall be due September 1 of each year. By July 1 of each year the permittee shall submit an inventory of emissions for the previous year on which the fee is to be assessed. The permittee may elect a quarterly payment method of four (4) equal payments; notification of the election of quarterly payments must be made to the DEQ by the first payment date of September 1. The permittee shall be liable for penalty as prescribed by State Law for failure to pay the fee or quarterly portion thereof by the date due.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.D.)

(e) If in disagreement with the calculation or applicability of the Title V permit fee, the permittee may petition the Commission in writing for a hearing in accordance with State Law. Any disputed portion of the fee for which a hearing has been requested will not incur any penalty or interest from and after the receipt by the Commission of the hearing petition.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.C.)

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

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(8).)

1.10 Any document required by this permit to be submitted to the DEQ shall contain a certification by a responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.2.E.)

1.11 The permittee shall allow the DEQ, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to perform the following:

(a) enter upon the permittee's premises where a Title V source is located or emissions-related activity is conducted, or where records must be kept under the conditions of this permit;

(b) have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(c) inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and

(d) as authorized by the Federal Act, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.C(2).)

1.12 Except as otherwise specified or limited herein, the permittee shall have necessary sampling ports and ease of accessibility for any new air pollution control equipment, obtained after

May 8, 1970, and vented to the atmosphere.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.I(1).)

1.13 Except as otherwise specified or limited herein, the permittee shall provide the necessary sampling ports and ease of accessibility when deemed necessary by the Permit Board for air pollution control equipment that was in existence prior to May 8, 1970.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.I(2).)

1.14 Compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance where such applicable requirements are included and are specifically identified in the permit or where the permit contains a determination, or summary thereof, by the Permit Board that requirements specifically identified previously are not applicable to the source.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.F(1).)

1.15 Nothing in this permit shall alter or affect the following:

(a) the provisions of Section 303 of the Federal Act (emergency orders), including the authority of the Administrator under that section;

(b) the liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;

(c) the applicable requirements of the acid rain program, consistent with Section 408(a) of the Federal Act.

(d) the ability of EPA to obtain information from a source pursuant to Section 114 of the Federal Act.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.F(2).)

1.16 The permittee shall comply with the requirement to register a Risk Management Plan if permittee's facility is required pursuant to Section 112(r) of the Act to register such a plan.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.H.)

1.17 Expiration of this permit terminates the permittee's right to operate unless a timely and complete renewal application has been submitted. A timely application is one which is submitted at least six (6) months prior to expiration of the Title V permit. If the permittee submits a timely and complete application, the failure to have a Title V permit is not a violation of regulations until the Permit Board takes final action on the permit application.

This protection shall cease to apply if, subsequent to the completeness determination, the permittee fails to submit by the deadline specified in writing by the DEQ any additional information identified as being needed to process the application.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.4.C(2)., R. 6.4.B., and R. 6.2.A(1)(c).)

1.18 The permittee is authorized to make changes within their facility without requiring a permit revision (ref: Section 502(b)(10) of the Act) if:

(a) the changes are not modifications under any provision of Title I of the Act;

(b) the changes do not exceed the emissions allowable under this permit;

(c) the permittee provides the Administrator and the Department with written notification in advance of the proposed changes (at least seven (7) days, or such other time frame as provided in other regulations for emergencies) and the notification includes:

(1) a brief description of the change(s),

(2) the date on which the change will occur,

(3) any change in emissions, and

(4) any permit term or condition that is no longer applicable as a result of the change;

(d) the permit shield shall not apply to any Section 502(b)(10) change.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.4.F(1).)

1.19 Should the Executive Director of the Mississippi Department of Environmental Quality declare an Air Pollution Emergency Episode, the permittee will be required to operate in accordance with the permittee's previously approved Emissions Reduction Schedule or, in the absence of an approved schedule, with the appropriate requirements specified in 11 Miss. Admin. Code Pt. 2, Ch. 3., "Regulations for the Prevention of Air Pollution Emergency Episodes" for the level of emergency declared.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 3.)

1.20 Except as otherwise provided herein, a modification of the facility may require a Permit to Construct in accordance with the provisions of Regulations 11 Miss. Admin. Code Pt. 2, Ch. 2., "Permit Regulations for the Construction and/or Operation of Air Emissions

Equipment", and may require modification of this permit in accordance with Regulations 11 Miss. Admin. Code Pt. 2, Ch. 6., "Air Emissions Operating Permit Regulations for the Purposes of Title V of the Federal Clean Air Act". Modification is defined as "[a]ny physical change in or change in the method of operation of a facility which increases the actual emissions or the potential uncontrolled emissions of any air pollutant subject to regulation under the Federal Act emitted into the atmosphere by that facility or which results in the emission of any air pollutant subject to regulation under the Federal Act into the atmosphere not previously emitted. A physical change or change in the method of operation shall not include:

(a) routine maintenance, repair, and replacement;

(b) use of an alternative fuel or raw material by reason of an order under Sections 2 (a) and (b) of the Federal Energy Supply and Environmental Coordination Act of 1974 (or any superseding legislation) or by reason of a natural gas curtailment plan pursuant to the Federal Power Act;

(c) use of an alternative fuel by reason of an order or rule under Section 125 of the Federal Act;

(d) use of an alternative fuel or raw material by a stationary source which:

(1) the source was capable of accommodating before January 6, 1975, unless such change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975, pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR 51, Subpart I, or 40 CFR 51.166; or

(2) the source is approved to use under any permit issued under 40 CFR 52.21 or under regulations approved pursuant to 40 CFR Part 51, Subpart I, or 40 CFR 51.166;

(e) an increase in the hours of operation or in the production rate unless such change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975, pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR Subpart I or 40 CFR 51.166; or

(f) any change in ownership of the stationary source.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.1.C(15).)

1.21 Any change in ownership or operational control must be approved by the Permit Board.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.4.D(4).)

1.22 This permit is a Federally approved operating permit under Title V of the Federal Clean Air Act as amended in 1990. All terms and conditions, including any designed to limit the source's potential to emit, are enforceable by the Administrator and citizens under the Federal Act as well as the Commission.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.B(1).)

1.23 Except as otherwise specified or limited herein, the open burning of residential, commercial, institutional, or industrial solid waste, is prohibited. This prohibition does not apply to infrequent burning of agricultural wastes in the field, silvicultural wastes for forest management purposes, land-clearing debris, debris from emergency clean-up operations, and ordnance. Open burning of land-clearing debris must not use starter or auxiliary fuels which cause excessive smoke (rubber tires, plastics, etc.); must not be performed if prohibited by local ordinances; must not cause a traffic hazard; must not take place where there is a High Fire Danger Alert declared by the Mississippi Forestry Commission or Emergency Air Pollution Episode Alert imposed by the Executive Director and must meet the following buffer zones.

(a) Open burning without a forced-draft air system must not occur within 500 yards of an occupied dwelling.

(b) Open burning utilizing a forced-draft air system on all fires to improve the combustion rate and reduce smoke may be done within 500 yards of but not within 50 yards of an occupied dwelling.

(c) Burning must not occur within 500 yards of commercial airport property, private air fields, or marked off-runway aircraft approach corridors unless written approval to conduct burning is secured from the proper airport authority, owner or operator.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.G.)

1.24 Except as otherwise specified herein, the permittee shall be subject to the following provision with respect to emergencies:

(a) Except as otherwise specified herein, an "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under 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.

(b) An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions specified in (c) following are met.

(c) The affirmative defense of emergency shall be demonstrated through properly signed contemporaneous operating logs, or other relevant evidence that include information as follows:

(1) an emergency occurred and that the permittee can identify the cause(s) of the emergency;

(2) the permitted facility was at the time being properly operated;

(3) during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and

(4) the permittee submitted notice of the emergency to the DEQ within 2 working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

(d) In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.

(e) This provision is in addition to any emergency or upset provision contained in any applicable requirement specified elsewhere herein.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.G.)

1.25 Except as otherwise specified herein, the permittee shall be subject to the following provisions with respect to upsets, startups, and shutdowns.

(a) Upsets (as defined in 11 Miss. Admin. Code Pt. 2, R. 1.2.)

(1) For an upset, the Commission may pursue an enforcement action for noncompliance with an emission standard or other requirement of an applicable rule, regulation, or permit. In determining whether to pursue enforcement action, and/or the appropriate enforcement action to take, the Commission may consider whether the source has demonstrated through

properly signed contemporaneous operating logs or other relevant evidence the following:

(i) An upset occurred and that the source can identify the cause(s) of the upset;

(ii) The source was at the time being properly operated;

(iii) During the upset the source took all reasonable steps to minimize levels of emissions that exceeded the emission standard or other requirement of an applicable rule, regulation, or permit;

(iv) That within 5 working days of the time the upset began, the source submitted a written report to the Department describing the upset, the steps taken to mitigate excess emissions or any other noncompliance, and the corrective actions taken and;

(v) That as soon as practicable but no later than 24 hours of becoming aware of an upset that caused an immediate adverse impact to human health or the environment beyond the source boundary or caused a general nuisance to the public, the source provided notification to the Department.

(2) In any enforcement proceeding by the Commission, the source seeking to establish the occurrence of an upset has the burden of proof.

(3) This provision is in addition to any upset provision contained in any applicable requirement.

(4) These upset provisions apply only to enforcement actions by the Commission and are not intended to prohibit EPA or third party enforcement actions.

(b) Startups and Shutdowns (as defined in 11 Miss. Admin. Code Pt. 2, R. 1.2.)

(1) Startups and shutdowns are part of normal source operation. Emission limitations apply during startups and shutdowns unless source specific emission limitations or work practice standards for startups and shutdowns are defined by an applicable rule, regulation, or permit.

(2) Where the source is unable to comply with existing emission limitations established under the State Implementation Plan (SIP) and defined in this regulation, 11 Mississippi Administrative Code, Part 2, Chapter 1, the

Department will consider establishing source specific emission limitations or work practice standards for startups and shutdowns. Source specific emission limitations or work practice standards established for startups and shutdowns are subject to the requirements prescribed in 11 Miss. Admin. Code Pt. 2, R. 1.10.B(2)(a) through (e).

(3) Where an upset as defined in Rule 1.2 occurs during startup or shutdown, see the upset requirements above.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.10.)

1.26 The permittee shall comply with all applicable standards for demolition and renovation activities pursuant to the requirements of 40 CFR Part 61, Subpart M, as adopted by reference in Regulation 11 Miss Admin. Code Pt. 2, R. 1.8. The permittee shall not be required to obtain a modification of this permit in order to perform the referenced activities.

(Ref.: 11 Miss Admin. Code Pt. 2, R. 1.8.)

SECTION 2. EMISSION POINTS & POLLUTION CONTROL DEVICES

Emission Point	Description
AA-000 (facility wide)	Municipal Solid Waste Landfill (Nominal Design Capacity: 13,120,000 yd^3 (10,031,000m^3) and 7, 201,913 megagrams – the landfill will receive household waste, commercial waste, industrial waste and asbestos-containing waste)
AA-001	Fugitive emissions from onsite roads

SECTION 3. EMISSION LIMITATIONS & STANDARDS

A. Facility-Wide Emission Limitations & Standards

3.A.1 Except as otherwise specified or limited herein, the permittee shall not cause, permit, or allow the emission of smoke from a point source into the open air from any manufacturing, industrial, commercial or waste disposal process which exceeds forty (40) percent opacity subject to the exceptions provided in (a) & (b).

(a) Startup operations may produce emissions which exceed 40% opacity for up to fifteen (15) minutes per startup in any one hour and not to exceed three (3) startups per stack in any twenty-four (24) hour period.

(b) Emissions resulting from soot blowing operations shall be permitted provided such emissions do not exceed 60 percent opacity, and provided further that the aggregate duration of such emissions during any twenty-four (24) hour period does not exceed ten (10) minutes per billion BTU gross heating value of fuel in any one hour.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.A.)

3.A.2 Except as otherwise specified or limited herein, the permittee shall not cause, allow, or permit the discharge into the ambient air from any point source or emissions, any air contaminant of such opacity as to obscure an observer's view to a degree in excess of 40% opacity, equivalent to that provided in Paragraph 3.A.1. This shall not apply to vision obscuration caused by uncombined water droplets.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.B.)

B. Emission Point Specific Emission Limitations & Standards

Emission Point	Applicable Requirement	Condition Number	Pollutant / Parameter	Limit / Standard
AA-000	40 CFR Part 63, Subpart AAAA – National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills 40 CFR 63.1935(a)(1); Subpart AAAA	3.B.1	HAPs	Applicability
	40 CFR 63.1960; Subpart AAAA 40 CFR Part 63, Subpart A – National Emission Standards for Hazardous Air Pollutants for Source Categories 40 CFR 63.6(e)(3); Subpart A	3.B.2		Develop a Start-Up, Shutdown, & Malfunction Plan
	40 CFR Part 61, Subpart M – National Emission Standard for Asbestos 40 CFR 61.154; Subpart M	3.B.3		Applicability
	40 CFR 61.154(b); Subpart M	3.B.4		Deterrence Measures for the General Public
	40 CFR 61.154(g) and 61.151(a); Subpart M	3.B.5		Closure Requirements
	40 CFR Part 60, Subpart XXX – Standards of Performance for Municipal Solid Waste Landfills that Commenced Construction, Reconstruction, or Modification after July 17, 2014 40 CFR 60.760(a); Subpart XXX	3.B.6	NMOC	Applicability
	40 CFR 60.762(b); Subpart XXX	3.B.7		Calculate Total NMOC Mass Emission Rate Annually

Emission Point	Applicable Requirement	Condition Number	Pollutant / Parameter	Limit / Standard
	40 CFR 60.764(a)(1)(i) and (ii); Subpart XXX	3.B.8		Calculate Total NMOC Mass Emission Rate Annually
AA-000	40 CFR 60.764(a)(2) – (6); Subpart XXX	3.B.9	NMOC	Total NMOC Mass Emission Rate Calculations
	40 CFR 60.762(b)(ii) and 60.763(a) – (d); Subpart XXX	3.B.10		Tier Sampling Analysis Procedure
	40 CFR 60.762(b)(iii) and 60.763(f); Subpart XXX	3.B.11	Operating Requirements	Gas Collection System Requirements
	40 CFR 60.769(a); Subpart XXX	3.B.12		Gas Control System Requirements
	40 CFR 60.769(b); Subpart XXX	3.B.13	Construction Requirements	Collection Device Requirements
	40 CFR 60.769(c); Subpart XXX	3.B.14		Collection Device Equipment Criteria
	11 Miss. Admin. Code Pt. 2, R. 1.4.B(2).	3.B.15	H_2S	One grain per 100 standard cubic feet

3.B.1 Emission Point AA-000 is subject to and shall comply with applicable requirements within 40 CFR Part 63, Subpart AAAA – National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills.

(Ref: 40 CFR 63.1935(a)(1); Subpart AAAA)

3.B.2 For Emission Point AA-000, the permittee shall develop a written "*Start-Up, Shutdown, and Malfunction*" (SSM) plan that describes, in detail, procedures for operating and maintaining the affected source during periods of start-up, shutdown, and malfunction, and a program of corrective action(s) for any malfunctioning equipment (i.e. air pollution control equipment, monitoring equipment, and/or process equipment) used to comply with 40 CFR Part 60, Subpart XXX (i.e. "*Subpart XXX*").

The SSM plan does not need to address any scenario that would not cause the affected source to exceed the applicable emission limitation of 34 megagrams (Mg) per year of non-methane organic compounds (NMOC) as referenced in Subpart XXX. The plan

must be developed no later than the initial installation and operation of a gas collection /control system as required by Conditions 3.B.9(a)(1)(i), (b)(4)(i), (c)(3)(i), and (d)(2).

The purpose of the SSM plan is to ensure the following actions:

(a) At all times, the permittee operates and maintains the affected source (including all associated air pollution control and monitoring equipment) in a manner which satisfies the general duty to minimize emissions established in 40 CFR 63.6(e)(1)(i), Subpart A;

(b) The permittee is prepared to correct malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of hazardous air pollutants (HAPs); and

(c) Reduce the reporting burden associated with periods of startup, shutdown, and malfunction (including corrective action taken to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation).

(Ref: 40 CFR 63.1960; Subpart AAAA and 40 CFR 63.6(e)(3); Subpart A)

3.B.3 Emission Point AA-000 is subject to and shall comply with applicable requirements found in 40 CFR 61, Subpart M – National Emission Standard for Asbestos.

(Ref: 40 CFR 61.154; Subpart M)

3.B.4 For Emission Point AA-000, unless a natural barrier adequately deters access by the general public, the permittee shall install and maintain warning signs and fencing in accordance with the following requirements:

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

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

(2) Conform to the requirements of 20 in. × 36 in. upright format signs as specified in 29 CFR 1910.145(d)(4), Subpart J;

(3) Display the following legend with letter sizes and styles of a visibility at least equal to those specified:

Legend	Notation
Asbestos Waste Disposal Site	2.5 cm (1 inch) Sans Serif, Gothic or Block
Do Not Create Dust	1.9 cm (¾ 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;

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

(Ref: 40 CFR 61.154(b); Subpart M)

3.B.5 For Emission Point AA-000, the permittee shall close sections where asbestos-containing waste material is deposited in accordance with one of the following options:

(a) Discharge no visible emissions to the outside air from the inactive section(s);

(b) Cover the asbestos-containing waste material with at least six (6) inches of compacted nonasbestos-containing material, and grow / maintain a cover of vegetation on the area adequate to prevent exposure of the asbestos-containing waste material;

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

(d) For an inactive section for asbestos tailings, a resinous or petroleum-based dust suppression agent that effectively binds dust to control surface air emissions may be used. Use the agent in the manner and frequency recommended for the particular asbestos tailings by the manufacturer of the dust suppression agent to achieve and maintain dust control. Obtain prior written approval of the MDEQ to use other equally effective dust suppression agents. For purposes of this option, any used, spent, or other waste oil is not considered a dust suppression agent.

(Ref: 40 CFR 61.154(g) and 61.151(a); Subpart M)

3.B.6 Emission Point AA-000 is subject to and shall comply with applicable requirements found in 40 CFR Part 60, Subpart XXX – Standards of Performance for Municipal Solid Waste Landfills that Commenced Construction, Reconstruction, or Modification after July 17, 2014.

(Ref: 40 CFR 60.760(a); Subpart XXX)

3.B.7 For Emission Point AA-000, at the onset of receiving waste, the permittee shall calculate the total non-methane organic compounds (NMOC) mass emission rate ("M_{NMOC}") annually in accordance with the procedures outlined in Condition 3.B.8 and the applicable requirements found in Condition 3.B.9.

(Ref: 40 CFR 60.762(b); Subpart XXX)

3.B.8 For Emission Point AA-000, the permittee shall calculate the total non-methane organic compounds (NMOC) mass emission rate ("M_{NMOC}") using Equation 1 or Equation 2 as provided below. Both equations may be used in conjunction if the actual year-to-year solid waste acceptance rate is known for part of the affected source's life and the year-to-year solid waste acceptance rate is unknown for the other part of the affected source's life:

(a) Equation 1 shall be used if the actual year-to-year solid waste acceptance rate is known:

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

where:

M_{NMOC} = Total NMOC emission rate, megagrams (Mg) per year;

k = 0.05 [methane generation rate constant, year $^{-1}$];

L_o = 170 [methane generation potential, m^3 per Mg solid waste];

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

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

C_{NMOC} = 4,000.00, parts per million (ppm) by volume as hexane.

The mass of non-degradable solid waste may be subtracted from the total mass of solid waste in a specific section of the affected source when calculating the value for "M_i" (if documentation of the nature and amount of such wastes is maintained).

(b) Equation 2 shall be used if the actual year-to-year solid waste acceptance rate is unknown:

$$M_{NMOC} = 2\,L_O\,R\,(e^{-kc} - e^{-kt})\,(C_{NMOC})\,(3.6\times 10^{-9}) \qquad \text{(Equation 2)}$$

where:

M_{NMOC} = Total NMOC emission rate, megagrams (Mg) per year;

L_o = 170 [methane generation potential, m^3 per Mg solid waste];

R = Average annual acceptance rate, Mg per year;

k = 0.05 [methane generation rate constant, year $^{-1}$];

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

t = Age of the affected source, years;

C_{NMOC} = 4,000.00, parts per million (ppm) by volume as hexane;

c = Time since closure, years; [for an active affected source, c = 0 and e^{-kc} = 1].

The mass of non-degradable solid waste may be subtracted from the total mass of solid waste in a specific section of the affected source when calculating the value for "R" (if documentation of the nature and amount of such wastes is maintained).

(Ref: 40 CFR 60.764(a)(1)(i) and (ii); Subpart XXX)

3.B.9 For Emission Point AA-000, the permittee shall comply with the procedures outlined for each "*Tier Sampling Analysis*" (as applicable):

(a) **TIER 1**

(1) The permittee shall compare the total non-methane organic compounds (NMOC) mass emission rate ("M_{NMOC}") calculated from the procedures

outlined in Condition 3.B.8 to the standard of 34 megagrams (Mg) per year.

(i) If the calculated M_{NMOC} is less than 34 Mg per year, the permittee shall comply with the reporting requirements outlined in Condition 5.C.6;

(ii) If the calculated M_{NMOC} is equal to or greater than 34 Mg per year, the permittee shall comply with one of the following options and comply with the reporting requirements outlined in Conditions 5.C.6 and 5.C.7(d):

(A) Install and operate a gas collection / control system within thirty (30) months after the first annual report in which the M_{NMOC} equals or exceeds 34 Mg per year, unless either TIER 2 or TIER 3 analysis demonstrates that the M_{NMOC} is less than 34 Mg per year;

(B) Determine a site-specific NMOC concentration ("C_{NMOC}") and recalculate the M_{NMOC} using TIER 2 analysis as outlined in Condition 3.B.9(b); or

(C) Determine a site-specific methane generation rate constant ("*k*") and recalculate the M_{NMOC} using TIER 3 analysis as outlined in Condition 3.B.9(c).

(b) **TIER 2**

(1) The permittee shall determine a site-specific C_{NMOC} using the following procedure and comply with the reporting requirements outlined in Condition 5.C.12:

(i) The permittee must install at least two sample probes per hectare, evenly distributed over the affected source's surface that has retained waste for at least two (2) years. If the affected source is larger than 25 hectares in area, only fifty (50) samples are required;

(ii) The probes should be evenly distributed across the sample area, and the sample probes should be located to avoid known areas of nondegradable solid waste;

(iii) The permittee must collect and analyze one sample of landfill gas from each probe to determine C_{NMOC} using Method 25 or Method 25C of Appendix A in Part 60 ("*Method 25 / Method 25C*");

(iv) Taking composite samples from different probes into a single cylinder is allowed. However, equal sample volumes must be taken from each probe;

(v) For each composite, the sample rate, collection times, beginning and ending cylinder vacuums, or alternative volume measurements must be recorded to verify that composite volumes are equal;

(vi) Composite sample volumes should be less than one (1) liter unless evidence can be provided to substantiate the accuracy of smaller volumes. Terminate compositing before the cylinder approaches ambient pressure where measurement accuracy diminishes;

(vii) If more than the required number of samples are taken, all samples must be used in the analysis;

(viii) The permittee must divide the C_{NMOC} from Method 25 / Method 25C analysis by six (6) to convert from the "*C_{NMOC} as carbon*" to the "*C_{NMOC} as hexane*";

(ix) If the affected source has an active or passive gas collection system in place, Method 25 / Method 25C analysis samples may be collected from these systems instead of surface probes provided that the collection system can be shown to present sampling as representative of the two (2) sampling probes per hectare requirement.

(x) For the active collection systems, samples may be collected from the common header pipe. The sample location on the common header pipe must be before any gas moving, condensate removal, or treatment system equipment;

(xi) For active collection systems, a minimum of three samples must be collected from the header pipe.

(2) The permittee shall reevaluate the site-specific C_{NMOC} every five (5) years using the procedure outlined in Section (1) of Part (b) in this condition.

(3) Upon completing the aforementioned analytical procedure, the permittee shall recalculate the M_{NMOC} in accordance with Condition 3.B.8 and using the average site-specific C_{NMOC} from the collected samples instead of the default value originally provided therein.

(4) The permittee shall compare the resulting M_{NMOC} to the standard of 34 Mg

per year.

(i) If the calculated M_{NMOC} is less than the referenced standard, the permittee shall recalculate the M_{NMOC} annually in accordance with Condition 3.B.8 using the average site-specific C_{NMOC} and shall comply with the reporting requirements outlined in Conditions 5.C.6 and 5.C.7(d)(1);

(ii) If the calculated M_{NMOC} is equal to or greater than the referenced standard, the permittee shall comply with one of the following options and comply with the reporting requirement outlined in Conditions 5.C.6 and 5.C.7(d):

(A) Install and operate a gas collection / control system within 30 months after the first annual report in which the M_{NMOC} equals to or exceeds 34 Mg per year, unless TIER 3 analysis demonstrates that the M_{NMOC} is less than 34 Mg per year;

(B) Determine a site-specific methane generation rate constant ("*k*") and recalculate the M_{NMOC} using TIER 3 analysis as outlined in Condition 3.B.9(c); or

(C) Conduct a surface emission monitoring demonstration using TIER 4 analysis as outlined in Condition 3.B.9(d).

(c) **TIER 3**

(1) The site-specific "*k*" value shall be determined using the procedures provided in Method 2E of Appendix A in Part 60 (i.e. "*Method 2E*"). Additionally, the permittee shall comply with the reporting requirements outlined in Condition 5.C.12.

(2) The permittee shall calculate the M_{NMOC} in accordance with Condition 3.B.8 using the site-specific "*k*" value and the average site-specific C_{NMOC} (as determined by TIER 2) instead of the default values originally presented for the referenced parameters.

(3) The permittee shall compare the resulting M_{NMOC} to the standard of 34 Mg per year.

(i) If the calculated M_{NMOC} is less than the referenced standard, the permittee shall recalculate the M_{NMOC} annually in accordance with Condition 3.B.8 using the site-specific C_{NMOC} (as determined by TIER

2), the site-specific "*k*" value, and shall comply with the reporting requirements outlined in Conditions 5.C.6 and 5.C.7(d);

(ii) If the calculated emission rate is equal to or greater than the referenced standard, the permittee shall comply with the one of the following options and comply with the reporting requirements outlined in Conditions 5.C.6 and 5.C.7(d)(2):

(A) Install and operate a gas collection / control system within 30 months after the first annual report in which the M_{NMOC} equals or exceeds 34 Mg per year; or

(B) Conduct a surface emission monitoring demonstration using TIER 4 analysis as outlined in Condition 3.B.9(d).

(4) The calculation of "*k*" is performed only once, and the value obtained from this performance test must be used in all subsequent annual M_{NMOC} calculations.

(5) The permittee may use other methods to determine the C_{NMOC} or "*k*" value as an alternative to the procedures required by TIER 2 and TIER 3 if the method has been approved by the MDEQ.

(d) **TIER 4**

(1) The permittee shall only implement TIER 4 analysis if it can be initially demonstrated that the M_{NMOC} is greater than or equal to 34 Mg per year but less than 50 Mg per year based on either TIER 1 or TIER 2. If both TIER 1 and TIER 2 indicate that NMOC emissions are 50 Mg per year or greater, then TIER 4 cannot be used.

(2) The permittee shall evaluate surface methane emissions to the standard of 500 parts per million (ppm). As such, the permittee shall conduct surface emission monitoring on a quarterly basis using the following procedure and comply with the reporting requirements outlined in Condition 5.C.12:

(i) The permittee shall measure surface concentrations of methane along the entire perimeter of the affected source and along a pattern that traverses the affected source at no more than 30-meter intervals using an organic vapor analyzer, a flame ionization detector, or any other portable monitor meeting the following specifications:

(A) The portable analyzer shall meet the instrument specifications

provided in Section 6 of Method 21 of Appendix A in Part 60 (i.e. "*Method 21*"), except that "*methane*" replaces" all references to "*VOC*";

(B) The calibration gas must be methane, diluted to a nominal concentration of 500 ppm in air;

(C) To meet the performance evaluation requirements in Section 8 of Method 21, the instrument evaluation procedures within Section 8.1 of Method 21 must be used;

(D) The calibration procedures provided in Sections 8 and 10 of Method 21 must be followed immediately before commencing a surface monitoring survey.

(ii) The background concentration must be determined by moving the probe inlet upwind and downwind at least 30 meters from the waste mass boundary of the affected source;

(iii) Surface emission monitoring must be performed in accordance with Section 8.3.1 of Method 21, except that the probe inlet must be placed no more than five (5) centimeters above the affected source's surface. The constant measurement of distance above the surface should be based on a mechanical device (e.g. a wheel on a pole).

When the on-site average wind speed exceeds four (4) miles per hour (mph) or gust exceeding ten (10) mph, the permittee shall use a wind barrier (similar to a funnel). The average on-site wind speed shall be determined in an open area at 5-minute intervals using an on-site anemometer with a continuous recorder and data logger for the entire duration of the monitoring event. The wind barrier must surround the surface emission monitor and must be placed on the ground to ensure wind turbulence is blocked. Surface emission monitoring cannot be conducted if the average wind speed is 25 mph.

Affected source surface areas where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover, and all cover penetrations must also be monitored using a device meeting the specifications outlined in Condition 3.B.9(d)(1)(i)(A) – (D);

(3) If there is any measured concentration of methane at 500 ppm or greater from the surface of the affected source, the permittee shall install and

operate a gas collection / control system within 30 months of the most recent NMOC emission rate report that indicates the M_{NMOC} equals to or exceeds 34 Mg per year (based on TIER 2) and shall comply with the reporting requirement outlined in Condition 5.C.7(d).

(4) If after 4 consecutive quarterly monitoring periods at an active affected source the measured concentration of methane is less than 500 ppm from the surface, the permittee shall continue conducting quarterly surface emission monitoring and comply with the reporting requirements outlined in Condition 5.C.7(d)(3).

(5) If after 4 consecutive quarterly monitoring periods at a closed affected source the measured concentration of methane is less than 500 ppm or greater from the surface, the permittee may reduce the frequency of surface emission monitoring from quarterly to annually and shall comply with the reporting requirement outlined in Condition 5.C.7(d)(3).

(Ref: 40 CFR 60.764(a)(2) – (6), Subpart XXX)

3.B.10 For Emission Point AA-000, as a component of the overall gas collection / control system, the permittee shall install and operate a gas collection system in accordance with the following applicable requirements:

(a) For an active collection system:

(1) The system must be designed to handle the maximum expected gas flow rate from the entire area of the affected source that warrants control over the intended use period of gas control system equipment;

(2) The system must collect gas from each area, cell, or group of cells in the affected source, in which initial solid waste has been in place for a period of five (5) years if active; or two (2) years or more if closed or at final grade;

(3) The system must collect gas at a sufficient extraction rate;

(4) The system must be designed to minimize off-site migration of sub-surface gas.

(b) For a passive collection system:

(1) The system must be designed to handle the maximum expected gas flow rate from the entire area of the affected source that warrants control over the intended use period of gas control system equipment;

(2) The system must collect gas from each area, cell, or group of cells in the affected source, in which initial solid waste has been in place for a period of five (5) years if active; or two (2) years or more if closed or at final grade;

(3) The system must collect gas at a sufficient extraction rate;

(4) The system must be installed with liners on the bottom and all sides in all areas in which gas is to be collected. The liners must be installed as required by 40 CFR 258.40, Subpart F.

(c) Operate with negative pressure at each wellhead except under the following conditions:

(1) A fire or increased well temperature;

(2) Use of a geo-membrane or synthetic cover;

(2) A decommissioned well;

(d) Operate each interior wellhead with a gas temperature less than 131ºF. The permittee may establish a higher operating temperature value at a particular well with approval from the MDEQ, but the proposed temperature cannot cause fires or significantly inhibit anaerobic decomposition by killing methanogens;

(e) Operate so that the methane concentration is less than 500 parts per million above background at the surface of the affected source. To determine if this level is exceeded, the permittee shall conduct surface testing using an organic vapor analyzer, a flame ionization detector, or any other portable monitor meeting the specifications outlined in Condition 3.B.9(d)(1)(i)(A) – (D).

The permittee shall conduct surface testing around the perimeter of the collection area and along a pattern that traverses the affected source at no more than 30-meter intervals and where visual observations indicate elevated concentrations of gas (e.g. distressed vegetation and cracks or seeps in the cover and all cover penetrations). Therefore, the permittee shall monitor any openings that are within an area of the affected source where waste has been placed and a gas collection system is required.

The permittee may establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan must be developed that includes a topographical map with the monitoring route and the rationale for any site-specific deviations from the 30-meter intervals. Areas with steep slopes or

other dangerous areas may be excluded from the surface testing.

(Ref: 40 CFR 60.762(b)(2)(ii) and 60.763(a) – (d); Subpart XXX)

3.B.11 For Emission Point AA-000, as a component of the overall gas collection / control system, the permittee shall install and operate a control system in accordance with one of the following options:

(a) A non-enclosed flare designed and operated in accordance with the parameters established in 40 CFR 60.18, Subpart A, except as noted in 40 CFR 60.764(e), Subpart XXX;

(b) A control system designed and operated to reduce non-methane organic compounds (NMOC) by 98 weight-percent (wt%);

(1) When an enclosed combustion device is used as the control system, either reduce NMOC by 98 wt% or reduce the outlet NMOC concentration to less than 20 parts per million by volume (dry basis as hexane at 3% oxygen).

The reduction efficiency (or ppm_v) must be established by an initial performance test to be completed no later than 180 days after the initial start-up of the approved control system using the EPA Test Methods specified in 40 CFR 70.764(d), Subpart XXX. However, the performance stack test is not required for boilers and process heaters with design heat input capacities equal to or greater than 150 MMBTU per hour that burn gas from the affected source;

(2) If a boiler or process heater is used as the control device, the gas stream must be introduced into the flame zone;

(3) The control device must be operated within the parameter ranges established during the initial or most recent performance test.

(c) Route the collected gas to a treatment system that processes the gas for subsequent sale or beneficial use. Venting of treated gas from the affected source to the ambient air is not allowed. If the treated gas cannot be routed for subsequent sale or beneficial use, then the treated gas must be controlled in accordance with one of the other described options.

For the purposes of this condition, all emissions from any atmospheric vent of an employed gas treatment system must be controlled in accordance with either Part (a) or (b) of this condition, with the exception of atmospheric vents located on a condensate storage tank.

(Ref: 40 CFR 60.762(b)(2)(iii) and 60.763(f); Subpart XXX)

3.B.12 For Emission Point AA-000, when the installation / operation of a gas collection system is deemed necessary by Condition 3.B.9, the permittee shall construct active collection wells, horizontal collectors, surface collectors, and/or other extraction devices at a sufficient density throughout all gas producing areas in accordance with the following procedures [unless alternative procedures have been approved by the MDEQ – as outlined in Condition 5.C.7(b) and (c)]:

(a) The collection devices within the interior must be certified by a professional engineer to demonstrate that comprehensive control of surface gas emissions can be achieved. As such, the following issues must be specifically addressed in the design plan for a collection system:

(1) Depths of refuse;

(2) Refuse gas generation rates and flow characteristics;

(3) Cover properties;

(4) Gas system expandability;

(5) Leachate and condensate management;

(6) Accessibility;

(7) Compatibility with filling operations;

(8) Integration with closure end use;

(9) Air intrusion control, corrosion resistance;

(10) Fill settlement;

(11) Resistance to the refuse decomposition heat; and

(12) Ability to isolate individual components or sections for repair or troubleshooting without shutting down entire collection system.

(b) The sufficient density of the specified gas collection devices must address landfill gas migration issues and augmentation of the collection system through the use of an active or passive system at the landfill perimeter or exterior.

(c) The placement of the specified gas collection devices must control all gas producing areas, except under the following circumstances:

(1) Any segregated area of asbestos or nondegradable material may be excluded from the collection system if properly documented [as required by Condition 5.B.20(b)].

(2) Any nonproductive area of the affected source may be excluded from control, provided that the total of all excluded areas can be shown to contribute less than 1% of the total non-methane organic compounds (NMOC) emissions and properly documented [as required by Condition 5.B.20(b)].

A separate NMOC emissions estimate must be made for each section proposed for exclusion by using Equation 3, and the sum of all such sections must be compared to the NMOC emissions estimate for the affected source:

$$Q_i = 2\ k\ L_O\ M_i\ (e^{-kt_i})\ (C_{NMOC})\ (3.6 \times 10^{-9}) \quad \text{(Equation 3)}$$

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 (m^3) 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 non-methane organic compounds, parts per million by volume (ppm_v).

The "*k*" value and C_{NMOC} determined during field testing [as outlined in Condition 3.B.9(b) and (c)] must be used if field testing has been performed in determining the total NMOC emission rate ("M_{NMOC}") or the "*radii of influence*" (i.e. the distance from the well center to a point in the affected source where the pressure gradient applied by the blower or compressor approaches zero).

If field testing has not been performed, the default values provided for "*k*", "L_o" and C_{NMOC} in Condition 3.B.8 [or any approved alternative value(s) as a result of Condition 3.B.9(c)(5)] must be used. The mass of nondegradable solid waste contained within a given section may be subtracted from the total mass of the section when estimating emissions if properly documented [as required by Condition 5.B.20(b)].

If the permittee seeks to exclude, or cease gas collection / control from, nonproductive physically separated (*e.g.* separately lined) closed areas that already have gas collection systems, NMOC emissions from each physically closed area must be computed using either Equation 3 or Equation 6.

(Ref: 40 CFR 60.769(a); Subpart XXX)

3.B.13 For Emission Point AA-000, as part of the gas collection system specified by Condition 3.B.10, the permittee shall construct corresponding gas collection devices by using the following equipment criteria:

(a) The landfill gas extraction components must be constructed of polyvinyl chloride (PVC), high density polyethylene (HDPE) pipe, fiberglass, stainless steel, or other nonporous corrosion resistant material of suitable dimensions meet the following specifications:

(1) Convey projected amounts of gases;

(2) Withstand installation, static, and settlement forces; and

(3) Withstand planned overburden or traffic loads.

(b) Collection devices (such as wells and horizontal collectors) must be perforated to allow gas entry without head loss sufficient to impair performance across the intended extent of control. Perforations must be situated with regards to the need to prevent excessive air infiltration.

(c) Vertical wells must be placed so as not to endanger underlying liners and must address the occurrence of water within the affected source. Holes and trenches constructed for piped wells and horizontal collectors must be of sufficient cross-section to allow for their proper construction and completion.

(d) Collection devices must be designed so as not to allow indirect short circuiting of air into the cover or refuse into the collection system or gas into the air. Any gravel used around pipe perforations should be of a dimension so as not to penetrate or block perforations.

(e) 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.

(Ref: 40 CFR 60.769(b); Subpart XXX)

3.B.14 For Emission Point AA-000, as part of the gas control system requirements specified in Condition 3.B.11, the permittee shall convey landfill gas to the control system through the collection header pipe(s). The gas mover equipment must be sized to handle the maximum gas generation flow rate ("Q_M") expected over the intended use period of the gas moving equipment – as calculated by Condition 5.B.5.

(Ref: 40 CFR 60.769(c); Subpart XXX)

3.B.15 The permittee shall not cause or permit the emission of any gas stream which contains hydrogen sulfide in excess of one grain per 100 standard cubic feet.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.4.B(2).)

C. Insignificant and Trivial Activity Emission Limitations & Standards

Insignificant Activity	Description
IA-001	500 Gallon Diesel Storage Tank #1
IA-002	500 Gallon Diesel Storage Tank #2
IA-003	Solidification Basin
IA-004	50, 000 Gallon Leachate Tank
IA-005	Special Waste Handling

Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Limit/Standard
11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(a).	3.C.1	PM	0.6 lbs/MMBTU
11 Miss. Admin. Code Pt. 2, R. 1.4.A(1).	3.C.2	SO_2	4.8 lbs/MMBTU

3.C.1 The maximum permissible emission of ash and/or particulate matter from fossil fuel burning installations of less than 10 million BTU per hour heat input shall not exceed 0.6 pounds per million BTU per hour heat input.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(a).)

3.C.2 The maximum discharge of sulfur oxides from any fuel burning installation in which the fuel is burned primarily to produce heat or power by indirect heat transfer shall not exceed 4.8 pounds (measured as sulfur dioxide) per million BTU heat input.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.4.A(1).)

D. Work Practice Standards

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Limit/Standard
AA-000	40 CFR 61.154(c), Subpart M	3.D.1	HAPs	Covering of Asbestos-Containing Material
	40 CFR 60.763(e), (f), and 60.765(e), Subpart XXX	3.D.2	NMOC	Adequate Operation of the Gas Collection / Control System

3.D.1 For Emission Point AA-000, at the end of each operating day or at least every 24-hour period while the site is in continuous operation, the permittee shall cover asbestos-containing waste material that has been deposited at the site during the operating day or previous 24-hour period with at least six (6) inches of compacted non asbestos-containing material.

(Ref: 40 CFR 61.154(c); Subpart M)

3.D.2 When required to install and operate a control system as outlined in Condition 3.B.11, the permittee shall operate the system associated with Emission Point AA-000 such that all collected gases are vented to the control system. The permittee shall also operate the control system at all times when the collected gas is routed to the system.

In the event the collection or the control system is not operating, the gas mover system shall be shut down and all valves in the either system contributing to venting of the gas to the atmosphere must be closed within one (1) hour of the collection or control system not operating.

In lieu of applicable conditions outlined in Section 5.B., the provisions of this condition shall apply during periods of start-up, shutdown, and malfunction.

(Ref: 40 CFR 60.763(e), (f) and 60.765(e), Subpart XXX)

SECTION 4. COMPLIANCE SCHEDULE

4.1 Unless otherwise specified herein, the permittee shall be in compliance with all requirements contained herein upon issuance of this permit.

4.2 Except as otherwise specified herein, the permittee shall submit to the Permit Board and to the Administrator of EPA Region IV a certification of compliance with permit terms and conditions, including emission limitations, standards, or work practices, by January 31 for the preceding calendar year. Each compliance certification shall include the following:

(a) the identification of each term or condition of the permit that is the basis of the certification;

(b) the compliance status;

(c) whether compliance was continuous or intermittent;

(d) the method(s) used for determining the compliance status of the source, currently and over the applicable reporting period;

(e) such other facts as may be specified as pertinent in specific conditions elsewhere in this permit.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.C(5)(a), (c), & (d).)

SECTION 5. MONITORING, RECORDKEEPING & REPORTING REQUIREMENTS

A. General Monitoring, Recordkeeping and Reporting Requirements

5.A.1 The permittee shall install, maintain, and operate equipment and/or institute procedures as necessary to perform the monitoring and recordkeeping specified below.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3).)

5.A.2 In addition to the recordkeeping specified below, the permittee shall include with all records of required monitoring information the following:

(a) the date, place as defined in the permit, and time of sampling or measurements;

(b) the date(s) analyses were performed;

(c) the company or entity that performed the analyses;

(d) the analytical techniques or methods used;

(e) the results of such analyses; and

(f) the operating conditions existing at the time of sampling or measurement.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(b)(1).)

5.A.3 Except where a longer duration is specified in an applicable requirement, 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, all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(b)(2).)

5.A.4 Except as otherwise specified herein, the permittee shall submit reports of any required monitoring by July 31 and January 31 for the preceding six-month period. All instances of deviations from permit requirements must be clearly identified in such reports and all required reports must be certified by a responsible official consistent with 11 Miss.

Admin. Code Pt. 2, R. 6.2.E.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(1).)

5.A.5 Except as otherwise specified herein, the permittee shall report all deviations from permit requirements, including those attributable to upsets, the probable cause of such deviations, and any corrective actions or preventive measures taken. Said report shall be made within five (5) days of the time the deviation began.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(2).)

5.A.6 Except as otherwise specified herein, the permittee shall perform emissions sampling and analysis in accordance with EPA Test Methods and with any continuous emission monitoring requirements, if applicable. All test methods shall be those versions or their equivalents approved by the DEQ and the EPA.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3).)

5.A.7 The permittee shall maintain records of any alterations, additions, or changes in equipment or operation.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3).)

B. Specific Monitoring and Recordkeeping Requirements

Emission Point	Applicable Requirement	Condition Number	Pollutant / Parameter Monitored	Monitoring / Recordkeeping Requirement
AA-000	40 CFR 63.1960, Subpart AAAA	5.B.1	HAPs	Maintain a Copy of the SSM Plan On-Site
	40 CFR 61.154(e)(1), Subpart M	5.B.2		Maintain Waste Shipment Records
	40 CFR 61.154(e)(4), Subpart M	5.B.3		Maintain a Copy of All Records and Reports
	40 CFR 61.154(f), Subpart M	5.B.4		Maintain Geographical Location of Asbestos-Containing Waste on a Map
	40 CFR 60.765(a)(1); Subpart XXX	5.B.5	Gas Flow Rate	Calculate Max. Expected Gas Generation Flow Rate
	40 CFR 60.765(a)(2); Subpart XXX	5.B.6	Collection System Design Requirements	Design System of Collection Devices
	40 CFR 60.765(a)(3)(i) and (ii); Subpart XXX	5.B.7	Operational Pressure	Corrective Actions if Negative Pressure Cannot be Maintained
	40 CFR 60.765(a)(5)(i) and (ii); Subpart XXX	5.B.8	Operational Temperature	Corrective Actions if Temperature Exceeds 131°F
	40 CFR 60.765(b); Subpart XXX	5.B.9	Gas Collection	Well Installation Deadline
	40 CFR 60.765(c) and 60.766(f); Subpart XXX	5.B.10	Methane	Conduct Surface Emissions Monitoring
	40 CFR 60.766(a) and 40 CFR 60.768(h); Subpart XXX	5.B.11	Pressure	Measure and Maintain Gauge Pressure Monthly
			Oxygen or Nitrogen	Monitor and Maintain Oxygen or Nitrogen Concentration Monthly
			Temperature	Monitor and Maintain Temperature Monthly

Emission Point	Applicable Requirement	Condition Number	Pollutant / Parameter Monitored	Monitoring / Recordkeeping Requirement
	40 CFR 60.766(b) – (d), (g), and (h); Subpart XXX	5.B.12	Control System Design Requirements	Install, Calibrate, and Maintain Applicable Equipment
AA-000	40 CFR 60.764(b); Subpart XXX	5.B.13	NMOC	Determine Period of Collection / Control System Removal
	40 CFR 60.768(a); Subpart XXX	5.B.14	Solid Waste Received	Maintain Records on Amount In-Place and Year-by-Year Acceptance Rate
	40 CFR 60.768(b); Subpart XXX	5.B.15	Control System Design Requirements	Maintain Applicable Records to Demonstrate Compliance / Adequate Operation
	40 CFR 60.768(c)(1); Subpart XXX	5.B.16	Applicable Operating Parameters	Maintain Continuous Records on Exceedances
	40 CFR 60.768(c)(2); Subpart XXX	5.B.17	Gas Flow	Maintain Continuous Records on Flow to Control System and Bypass Line
			Locking Mechanism(s)	Conduct Monthly Inspections of Locking Mechanism on Bypass Line
	40 CFR 60.768(c)(3) and (4); Subpart XXX	5.B.18	Periods of Operation	Maintain Records on Certain Periods of Operation
	40 CFR 60.768(c)(5); Subpart XXX	5.B.19	Periods of Non-Operation	Maintain Records on when Collection System and/or Control System is Non-Operational
	Ref: 40 CFR 60.768(d); Subpart XXX	5.B.20	Collection Devices	Maintain Plot Map with All Collectors Maintain Records on Nondegradable Waste and Newly Installed Collectors
	40 CFR 60.768(e); Subpart XXX	5.B.21	Applicable Operating Parameters	Maintain Records on Exceedances
	40 CFR 60.768(g); Subpart XXX	5.B.22	Methane	Maintain Records on Surface Emissions Monitoring
	11 Miss. Admin. Code Pt. 2, R. 1.4.B(2).	5.B.23	H_2S	Maintain Records on H_2S

5.B.1 For Emission Point AA-000, the permittee shall maintain a copy of the "*Start-Up, Shutdown, & Malfunction*" (SSM) plan required by Condition 3.B.2 on-site.

(Ref: 40 CFR 63.1960; Subpart AAAA)

5.B.2 For Emission Point AA-000, the permittee shall maintain waste shipment records for all asbestos-containing waste material received at the affected source. The records shall include the following information:

(a) The name, address, and telephone number of the waste generator;

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

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

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

(e) Any attempt made to reconcile a discovered discrepancy with a waste generator regarding the quantity of waste material designated on a waste shipment record and the quantity actually received;

(f) The date of the receipt.

(40 CFR 61.154(e)(1); Subpart M)

5.B.3 For Emission Point AA-000, the permittee shall maintain a copy of all applicable records and reports required by 40 CFR Part 61, Subpart M for at least two (2) years.

(Ref: 40 CFR 61.154(e)(4); Subpart M)

5.B.4 For Emission Point AA-000, until closure of the affected source, the permittee shall maintain records of the location, depth / area, and quantity (in cubic yards, yd^3) of asbestos-containing waste material within the affected source on a map or diagram of the disposal area.

(Ref: 40 CFR 61.154(f); Subpart M)

5.B.5 For Emission Point AA-000, the permittee shall demonstrate compliance with the maximum expected gas generation flow rate ("Q_M") outlined in Condition 3.B.10(a)(1) and (b)(1) by using either Equation 4 or Equation 5 as provided below:

(a) For an affected source with an unknown year-to-year solid was acceptance rate:

(Equation 4)

$$Q_M = 2\ L_0\ R\ (e^{-kc} - e^{-kt})$$

where:

Q_M = Maximum expected gas generation flow rate, cubic meters (m^3) per year;

L_o = Methane generation potential, m^3 per megagram (Mg) solid waste;

R = Average annual acceptance rate, Mg per year;

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

t = Age of the affected source at equipment installation plus the time the owner or operator intends to use the gas mover equipment or active life of the affected source, 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 $e^{-kc} = 1$).

(b) For an affected source with a known year-to-year solid waste acceptance rate:

(Equation 5)

$$Q_M = \sum_{i=1}^{n} 2\ k\ L_O\ M_i\ (e^{-kt})$$

where:

Q_M = Maximum expected gas generation flow rate, cubic meters (m^3) per year;

L_o = Methane generation potential, m^3 per megagram solid waste;

M_i = Mass of solid was in the i^{th} section, Mg;

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

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

The "k" and "L_o" values 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 MDEQ. If the "k" value has been determined using

TIER 3 [as outlined in Condition 3.B.9(c)], the specific "*k*" determined from that analysis must be used.

A value of no more than fifteen (15) years must be used for the intended use period of the gas mover equipment. The active life of the affected source is its age plus the estimated number of years until closure.

When the gas collection / 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, Equation 4 or Equation 5. However, if the affected source is still accepting waste, the actual measured flow data will not equal the maximum expected gas generation rate. Therefore, calculations using Equation 4 or Equation 5 must be used to predict the maximum expected gas generation rate over the intended period of use of the gas control system equipment.

(Ref: 40 CFR 60.765(a)(1); Subpart XXX)

5.B.6 For Emission Point AA-000, the permittee shall demonstrate compliance with either Condition 3.B.10(a)(2) or (b)(2) by designing a system of vertical wells, horizontal collectors, and/or other collection devices satisfactory to the MDEQ capable of controlling and extracting gas from all portions of the affected source in accordance with all applicable operational and performance standards.

(Ref: 40 CFR 60.765(a)(2); Subpart XXX)

5.B.7 For Emission Point AA-000, the permittee shall institute the following actions if operation of the gas collection system under negative pressure cannot be maintained, as required by Condition 3.B.10(c):

(a) If a positive pressure exists, action must be initiated to correct the exceedance within five (5) calendar days, except for the following conditions:

(1) A fire or increased well temperature. The permittee shall record instances when positive pressure occurs in efforts to avoid a fire;

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

(3) A decommissioned well. A well may experience a static positive pressure after shutdown to accommodate for declining flows.

Any attempted corrective measure must not cause exceedances of other applicable operational or performance standards.

(b) If negative pressure cannot be achieved without excess air infiltration within fifteen (15) calendar 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 sixty (60) days after positive pressure was first measured.

(c) 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.

(Ref: 40 CFR 60.765(a)(3)(i) and (ii); Subpart XXX)

5.B.8 For Emission Point AA-000, the permittee shall also institute the following actions if the monitored temperature of a well cannot be maintained within the range referenced in Condition 3.B.10(d):

(a) If a well exceeds the operating parameter for temperature, action must be initiated to correct the exceedance within five (5) calendar days. Any attempted corrective measure must not cause exceedances of other applicable operational or performance standards.

(b) If a landfill gas temperature less than 131ºF cannot be achieved within fifteen (15) calendar days of the first measurement of gas temperature greater than 131ºF, the permittee shall conduct a root cause analysis and correct the exceedance as soon as practicable, but no later than sixty (60) days after a gas temperature greater than 131ºF was first measured.

(c) 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 measurement of gas temperature greater than 131ºF.

(Ref: 40 CFR 60.765(a)(5)(i) and (ii); Subpart XXX)

5.B.9 For Emission Point AA-000, the permittee shall demonstrate compliance with Conditions 3.B.10(a)(2) and (b)(2) by installing each well no later than sixty (60) days after the date in which initially deposited solid waste has been in place for a period of

five (5) years if active; or two (2) years or more if closed / at final grade.

(Ref: 40 CFR 60.765(b); Subpart XXX)

5.B.10 For Emission Point AA-000, the permittee shall demonstrate compliance with Condition 3.B.10(e) by adhering to the following provisions:

(a) After the installation and start-up of a 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 affected source at 30-meter intervals (or a site-specific established spacing) for each collection area on a quarterly basis using an organic vapor analyzer, a flame ionization detector, or any other portable monitor meeting the specifications provided in Condition 3.B.9(d)(1)(i)(A) – (D);

(b) The background concentration must 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;

(c) Surface emission monitoring must be performed in accordance with Section 8.3.1 of Method 21 of appendix A in Part 60, except that the probe inlet must be placed within five (5) to ten (10) centimeters of the ground. Monitoring must be performed during typical meteorological conditions;

(d) Any reading of 500 parts per million (ppm) or more above background at any location must be recorded as a monitored exceedance and the following actions must be taken:

(1) The location of each monitored exceedance must be marked and recorded along with the concentration;

(2) Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection near each exceedance must be made and the location must be re-monitored within 10 calendar days of detecting the exceedance;

(3) If the re-monitoring of the location shows a second exceedance, additional corrective action(s) must 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 outlined in Section (5) of Part (d) in this condition must be taken, and no further monitoring of that location is required until that specific action has been taken;

(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 period [as outlined in sub-section (2) or (3)] must be re-monitored one (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 either Section (3) or (5) of Part (d) in this condition must be taken;

(5) For any location where the monitored methane concentration equals or exceeds 500 ppm above background three (3) times within a quarterly period, a new well or other collection device must be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance and a corresponding timeline for installation may be submitted to the MDEQ for approval.

For the purposes of Part (d) in this condition, if the described actions are taken, the exceedance is not a violation of the operational requirement specified in Condition 3.B.11(e).

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

(f) 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.

(Ref: 40 CFR 60.765(c) and 60.766(f); Subpart XXX)

5.B.11 For Emission Point AA-000, the permittee shall demonstrate compliance with the requirements outlined in Condition 3.B.10(a) by both installing a sampling port and thermometer / any other temperature measuring device or an access for temperature measurements at each wellhead and adhering to the following monitoring provisions:

(a) Measure the gauge pressure in the gas collection header monthly;

(b) Monitor the nitrogen or oxygen concentration in the landfill gas monthly using the following procedures;

(1) The nitrogen level must be determined by using EPA Test Method 3C, unless an alternative test method is established – as allowed by Condition

5.C.7(b);

(2) The oxygen level must be determined by an oxygen meter using EPA Test Method 3A, EPA Test Method 3C, or ASTM Standard D6522-11 [unless an alternative test method is established – as allowed by Condition 5.C.7(b)]. If the sample location is prior to a combustion source, the following provisions shall be included in the determination:

(i) The span must be set between 10% and 12% oxygen;

(ii) A data recorder is not required;

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

(iv) A calibration error check is not required;

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

(3) A portable gas composition analyzer may be used to monitor the oxygen levels provided that the analyzer is calibrated, and the analyzer meets all quality assurance / quality control requirements specified in either EPA Test Method 3A or ASTM Standard D6522-11.

(c) Monitor the temperature of the landfill gas monthly. The temperature measuring device must be calibrated annually using the procedure outlined in Section 10.3 of EPA Test Method 2 of Appendix A-1 in Part 60.

Additionally, the permittee shall maintain up-to-date records that detail all monitoring data for the parameters within this condition.

(Ref: 40 CFR 60.766(a) and 40 CFR 60.768(h); Subpart XXX)

5.B.12 For Emission Point AA-000, contingent on the respective control device, the permittee shall demonstrate compliance with the design and operating requirements specified in Condition 3.B.11 by calibrating, maintaining, and operating the following equipment (according to the manufacturer's specifications):

(a) *If using an enclosed combustor*:

(1) A temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of ±1% of the temperature being measured (expressed in ºC) or ± 0.5ºC, whichever is greater. A temperature monitoring device is not required for boilers or process heaters with design heat input

capacity equal to or greater 150 MMBTU per hour; and

(2) A device that records flow to the control device and bypass of the control device (if applicable). Additionally, the permittee shall perform the following actions:

(i) Install, calibrate, and maintain a gas flow rate measuring device that must record the flow to the control device at least every fifteen (15) minutes; and

(ii) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism must 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.

(b) *If using a non-enclosed flare*:

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

(2) A device that records flow to the flare and bypass of the flare (if applicable). Additionally, the permittee shall perform the following actions:

(i) Install, calibrate, and maintain a gas flow rate measuring device that must record the flow to the control device at least every 15 minutes; and

(ii) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism must 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.

(c) *If using a gas treatment system*:

(1) All associated monitoring systems in accordance with the site-specific treatment system monitoring plan [as required by Condition 5.B.15(f)(2)];

(2) A device that records flow to the flare and bypass of the flare (if applicable). Additionally, the permittee shall perform the following actions:

(i) Install, calibrate, and maintain a gas flow rate measuring device that must record the flow to the control device at least every 15 minutes; and

(ii) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism must 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.

(d) *If using a control device other than a non-enclosed flare, an enclosed combustor, or a treatment system*, the permittee shall provide information satisfactory to the MDEQ describing the operation of the control device, the operating parameters that would indicate proper performance, and appropriate monitoring procedures.

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

For the purposes of this condition, the monitoring requirements for any of the listed control device options shall 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 / quality control activities. However, the permittee shall complete all monitoring system repairs in response to monitoring system malfunctions and return the monitoring system to operation as expeditiously as practicable.

(Ref: 40 CFR 60.766(b) – (d), (g), and (h); Subpart XXX)

5.B.13 For Emission Point AA-000, after the installation and start-up of an overall gas collection / control system that complies with all applicable conditions within this permit, the permittee shall calculate the total non-methane organic compounds (NMOC) mass emission rate using Equation 6 to determine when the overall system can be capped, removed, or decommissioned:

(Equation 6)

$$M_{NMOC} = 1.89 \times 10^{-9} \, (Q_{LFG}) \, (C_{NMOC})$$

where:

M_{NMOC} = Total NMOC emission rate, megagrams (Mg) per year;

Q_{LFG} = Landfill gas flow rate, cubic meters (m^3) per minute;

C_{NMOC} = NMOC concentration, parts per million (ppm) by volume as hexane.

Additionally, values for the "Q_{LFG}" and "C_{NMOC}" parameters in Equation 6 shall be determined in accordance with the following provisions:

(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 the provisions in Section 10 of EPA Test Method 2E of Appendix A in Part 60;

(b) The average C_{NMOC} must be determined in accordance with the provisions outlined in Condition 3.B.9(b)(1)(i) – (xi);

(c) The permittee may use another method(s) to determine the Q_{LFG} and/or the C_{NMOC} if the method(s) has been approved by the MDEQ; and

(d) The permittee shall comply with the reporting requirements outlined in Condition 5.C.12.

(Ref: 40 CFR 60.764(b); Subpart XXX)

5.B.14 For Emission Point AA-000, the permittee shall maintain records that demonstrate the up-to-date amount of solid waste in-place and the year-by-year waste acceptance rate.

(Ref: 40 CFR 60.768(a); Subpart XXX)

5.B.15 For Emission Point AA-000, for the life of applicable gas control system equipment, the permittee shall maintain records detailing the following information as measured during an initial performance test or a compliance determination:

(a) The maximum expected gas generation flow rate as calculated by Condition 5.B.5. The permittee may use another test method to determine the maximum gas generation flow rate only if the method has been approved by the MDEQ;

(b) The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in Condition 3.B.13(a);

(c) *If using an enclosed combustion device* as the gas control device (other than a

boiler or process heater with a design heat input capacity equal to or greater than 150 MMBTU per hour):

(1) The average temperature measured at least every fifteen (15) minutes and averaged over the same time period of the performance test;

(2) The percent reduction of non-methane organic compounds (NMOC) achieved by the control device – as required in Condition 3.B.11(b).

(d) *If using boiler or process heater (of any size)* as the control device and introducing the gas stream into the flame zone: a description of the location where the collected gas vent stream is introduced into the respective unit over the same period of the performance testing;

(e) *If using a non-enclosed flare*:

(1) The flare type (i.e. steam-assisted, air-assisted, or non-assisted);

(2) All visible emission readings;

(3) The heat content determination;

(4) All flow rate or bypass flow rate measurements;

(5) All exit velocity determinations made during the performance stack test (as specified in 40 CFR 60.18, Subpart A);

(6) Continuous records of the flare pilot flame or the flare flame monitoring; and

(7) The records of all operational periods during which the pilot flame or the flare flame is absent.

(f) *If using a landfill gas treatment system*:

(1) All bypass records (i.e. respective records showing the landfill gas flow to the treatment system and bypassing the treatment system);

(2) A site-specific treatment monitoring plan (which shall include):

(i) Monitoring records of the parameters that are identified in the treatment system monitoring plan and that ensure the treatment system is operating properly for each intended end use of the treated landfill

gas.

At a minimum, records should include records of filtration, de-watering, and compression parameters that ensure the treatment system is operating properly for each intended end use of the treated landfill gas.

(ii) Monitoring methods, frequencies, and operating ranges for each monitored operating parameter based on the manufacturer's recommendations or engineering analysis for each intended end use of the treated landfill gas.

(iii) Documentation of the monitoring methods and ranges, along with justification for their use.

(iv) The identity of who is responsible (by job title) for data collection.

(v) The processes and methods used to collect the necessary data.

(vi) The description of the procedures and methods that are used for quality assurance, maintenance, and repair of all continuous monitoring systems.

(Ref: 40 CFR 60.768(b); Subpart XXX)

5.B.16 For Emission Point AA-000, the permittee shall maintain up-to-date continuous records on applicable equipment operating parameters required to be monitored by Conditions 5.B.11 and 5.B.12 for periods of operation during which the parameter boundaries established during the most recent performance stack test are exceeded.

Additionally, the following provisions constitute exceedances that must be recorded and maintained:

(a) *For enclosed combustors* [except for boilers and process heaters with a design heat input capacity of 150 MMBTU per hour or greater]: all 3-hour periods of operation during which the average temperature was more than 82ºF below the average combustion temperature established during the most recent performance test in which compliance with Condition 3.B.11 was determined.

(b) *For boilers or process heaters*: whenever there is a change in the location at which the vent stream is introduced into the flame zone [as required by Condition 3.B.11(b)(2)].

(Ref: 40 CFR 60.768(c)(1); Subpart XXX)

5.B.17 For Emission Point AA-000, the permittee shall maintain up-to-date continuous records on the respective flow to the control system and the bypass line. Additionally, the permittee shall also maintain records that demonstrate monthly inspections are conducted on car-seals or lock-and-key configurations used to seal bypass lines.

(Ref: 40 CFR 60.768(c)(2); Subpart XXX)

5.B.18 For Emission Point AA-000, contingent on the control device selected for the gas control system, the permittee shall maintain up-to-date records pertaining to the following information:

(a) *If using a boiler or process heater with a design heat input capacity 150 MMBTU or greater*: records that detail all periods of operation for the selected unit;

(b) *If using a non-enclosed flare*: continuous records that indicate the flame or flare pilot monitoring as specified by Condition 5.B.12(b) and records that detail all periods in which the flame or flare pilot is absent.

(Ref: 40 CFR 60.768(c)(3) and (4); Subpart XXX)

5.B.19 For Emission Point AA-000, when using an active collection system designed in accordance with Condition 3.B.10(a), the permittee shall maintain up-to-date records that detail all periods when the collection system and/or control device is not operating.

(Ref: 40 CFR 60.768(c)(5); Subpart XXX)

5.B.20 For Emission Point AA-000, over the life of the collection system, the permittee shall maintain an up-to-date plot map showing each existing and planned collector in the system and provide a unique identification location label for each collector.

Additionally, as it pertains to collection devices, the permittee shall also maintain up-to-date records for the following information:

(a) The installation date and location of all newly installed collectors as specified by Condition 5.B.9;

(b) The nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste excluded from the collection system as well as any nonproductive areas excluded from the collection system.

(Ref: 40 CFR 60.768(d); Subpart XXX)

5.B.21 For Emission Point AA-000, the permittee shall maintain up-to-date records on the following information:

(a) All collection and control system exceedances of operational standards (as specified in Conditions 3.B.10, 3.B.11, and 3.D.2), the reading in the subsequent month to determine whether the second reading is an exceedance, and the location of each exceedance;

(b) Each wellhead temperature monitoring value of 131°F or above, each wellhead nitrogen level at or above 20%, and each wellhead oxygen level at or above 5%;

(c) Any conducted root cause analysis required by Conditions 5.B.7(b) and 5.B.8(b), including a description of the recommended corrective action(s) taken, and the date(s) the corrective action(s) were completed;

(d) Any conducted root cause analysis required by Conditions 5.B.7(c) and 5.B.8(c), including the corrective action analysis and the date for a corrective action(s) already completed following the positive pressure reading or high temperature reading; for any action(s) not already completed, include a schedule for implementation in addition to proposed commencement and completion dates;

(e) All information required by Condition 5.C.13; for any action(s) not already completed, include proposed commencement and completion dates and a copy of any comments / final approval on the corrective action analysis or the schedule from the MDEQ.

(Ref: 40 CFR 60.768(e); Subpart XXX)

5.B.22 For Emission Point AA-000, to demonstrate that site-specific surface methane emissions are below 500 parts per million (ppm) by conducting TIER 4 surface emission monitoring [outlined in Condition 3.B.9(d)], the permittee shall maintain up-to-date records that detail all surface emissions monitoring and the information related to monitoring instrument calibrations conducted in accordance with Sections 8 and 10 of Method 21 of Appendix A in Part 60.

The following items shall also be included in the records to be maintained:

(a) Calibration records:

(1) The date of calibration and the initials of operator performing the calibration;

(2) The calibration gas cylinder identification, certification date, and certified concentration;

(3) The instrument scale(s) used;

(4) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value;

(5) If an owner or operator makes their own calibration gas, a description of the procedure used.

(b) Digital photographs of the instrument setup that include the wind barrier. The photographs must be time- and date-stamped and taken at the first sampling location prior to actual sampling and at the last sampling location after actual sampling at the end of each sampling day for the duration of the TIER 4 monitoring demonstration;

(c) A time-stamp of each surface scan reading:

(1) The time-stamp should be detailed to the nearest second, based on when the sample collection begins;

(2) A log for the length of time each sample was taken using a stopwatch (*e.g.*, the time the probe was held over the area).

(d) The location of each surface scan reading. The permittee shall determine the coordinates using an instrument with an accuracy of at least four (4) meters. Coordinates must be in decimal degrees with at least five (5) decimal places.

(e) The monitored methane concentration (in ppm) of each reading.

(f) The background methane concentration (in ppm) after each instrument calibration test;

(g) The adjusted methane concentration using most recent calibration (in ppm);

(h) For readings taken at each surface penetration, the unique identification location label matching the label specified in Condition 5.B.20;

(i) Records of the operating hours of the gas collection system for each destruction device.

(Ref: 40 CFR 60.768(g); Subpart XXX)

5.B.23 For Emission Point AA-000, the permittee shall monitor and record the amount of hydrogen sulfide from the gas streams.

Gas streams containing hydrogen sulfide in excess of one grain per 100 standard cubic feet shall be incinerated at temperatures of not less than 1600°F for a period of not less than 0.5 seconds, or processed in such manner which is equivalent to or more effective for the removal of hydrogen sulfide.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.4.B(2).)

C. Specific Reporting Requirements

Emission Point	Applicable Requirement	Condition Number	Pollutant / Parameter Monitored	Reporting Requirement
AA-000	40 CFR 63.1965(c); Subpart AAAA 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(2).	5.C.1	HAPs	Submit Deviation Report
	40 CFR 61.154(e)(1)(iv); Subpart M	5.C.2		Report the Presence of Improperly Enclosed or Uncovered Asbestos-Containing Waste
	40 CFR 61.154(e)(3); Subpart M	5.C.3		Report any Attempted Waste Discrepancy Reconciliation over 15 Days
	40 CFR 61.154(g) and 61.151(d); Subpart M	5.C.4		Notification of Excavation / Disturbance
	40 CFR 61.154(g) and 61.151(e); Subpart M	5.C.5		Notification of Asbestos-Containing Material
	40 CFR 60.767(b); Subpart XXX	5.C.6	NMOC	Submit NMOC Emission Rate Report

Emission Point	Applicable Requirement	Condition Number	Pollutant / Parameter Monitored	Reporting Requirement
	40 CFR 60.767(c); Subpart XXX	5.C.7	Design Requirements	Submit Gas Collection / Control System Design Plan
	40 CFR 60.767(d); Subpart XXX	5.C.8		Submit Revised Gas Collection / Control System Design Plan
	40 CFR 60.767(e), Subpart XXX	5.C.9	Closure Requirements	Submit a Closure Report
	40 CFR 60.767(f); Subpart XXX	5.C.10		Submit an Equipment Removal Report
	40 CFR 60.767(g); Subpart XXX	5.C.11	Operational Requirements	Submit an Annual Report for an Active Collection System
	40 CFR 60.767(h) and (i); Subpart XXX	5.C.12	NMOC	Submit Performance Stack Test Results / Reports
			Methane	
	40 CFR 60.767(j); Subpart XXX	5.C.13	Corrective Actions	Submit Corrective Action Reports
AA-000	40 CFR 60.767(l), Subpart XXX	5.C.14	Methane	Notification of TIER 4 Surface Emissions Monitoring

5.C.1 For Emission Point AA-000, the permittee shall submit a report in accordance with Condition 5.A.5 if it is determined that the "*Start-Up, Shutdown, & Malfunction*" (SSM) plan required by Condition 3.B.2 is not developed by the deadline outlined in Condition 3.B.2 or not maintained on-site.

(Ref: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(2). and 40 CFR 63.1965(c); Subpart AAAA)

5.C.2 For Emission Point AA-000, the permittee shall report (in writing) to the MDEQ the presence of a significant amount of improperly enclosed or uncovered asbestos-containing waste material (as determined by the permittee) in any waste shipment received. The report shall include a copy of the applicable waste shipment record.

(Ref: 40 CFR 61.154(e)(1)(iv); Subpart M)

5.C.3 For Emission Point AA-000, if any discrepancy reconciliation as outlined in Condition 5.B.2 cannot be completed with fifteen (15) days after receiving the specific waste, the permittee shall immediately report (in writing) to the MDEQ regarding the matter. The report shall include a description of the discrepancy, all attempts to reconcile the discrepancy, and a copy of the waste shipment record.

(Ref: 40 CFR 61.154(e)(3); Subpart M)

5.C.4 For Emission Point AA-000, the permittee shall notify the MDEQ in writing at least 45 days prior to excavating or otherwise disturbing any asbestos-containing waste material that has been deposited at a waste disposal site under this section, and follow the procedures specified in the notification.

If the excavation will begin on a date other than the one contained in the original notice, notice of the new start date must be provided to the MDEQ at least ten (10) working days before excavation begins and in no event shall excavation begin earlier than the date specified in the original notification. All required notices shall include the following information:

(a) Scheduled starting and completion dates;

(b) Reason for disturbing the waste;

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

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

(Ref: 40 CFR 61.154(g) and 61.151(d); Subpart M)

5.C.5 For Emission Point AA-000, the permittee shall record (in accordance with State law) a notation on the deed to the facility property and on any other instrument that would normally be examined during a title search within sixty (60) days of the affected source becoming inactive. This notation will in perpetuity notify any potential purchaser of the property the following information:

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

(b) The survey plot and record(s) of the location(s) and quantity of asbestos-containing waste disposed of within the affected source (as required by Condition

5.B.3) have been filed with the MDEQ; and

(c) The site is subject to 40 CFR Part 61, subpart M.

(Ref: 40 CFR 61.154(g) and 61.151(e); Subpart M)

5.C.6 For Emission Point AA-000, the permittee shall prepare and submit a report to the MDEQ detailing the total non-methane organic compounds (NMOC) mass emission rate ("M_{NMOC}") in accordance with the following provisions:

(a) The initial report must be submitted within ninety (90) days after construction has commenced on the affected source. All subsequent reports must be submitted no later than one (1) calendar year after the most recent submission, except as provided in Part (c) of this condition.

(b) The report must contain an annual or 5-year estimate of the M_{NMOC} value calculated using either Condition 3.B.8 ("*Equation 1*" or "*Equation 2*") or Condition 5.B.13 ("*Equation 6*").

(c) If the estimated M_{NMOC} value as reported in an annual report to the MDEQ is less than 34 megagrams (Mg) per year in each of the next five (5) consecutive years, the permittee may elect to submit an estimate of the M_{NMOC} value for the next 5-year period in lieu of annual reporting. This estimate must include the current amount of solid waste-in-place and the estimated waste acceptance rate for each year of the 5 years for which the M_{NMOC} value is estimated.

All data and calculations upon which this estimate is based on must be provided to the MDEQ. This estimate must be revised at least once every 5 years. If the actual waste acceptance rate exceeds the estimated waste acceptance rate in any year reported in the 5-year estimate, a revised 5-year estimate must be submitted to the MDEQ. The revised estimate must cover the 5-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate.

(d) The report must include all applicable data, calculations, sample reports and measurements used to estimate annual or 5-year emissions.

The permittee is exempt from the reporting requirements of this condition after during such time as the operating gas collection / control system complies with all applicable design requirements, operational standards, and compliance provisions within 40 CFR Part 60, Subpart XXX.

(Ref: 40 CFR 60.767(b); Subpart XXX)

5.C.7 For Emission Point AA-000, the permittee shall submit a gas collection / control system design plan to the MDEQ for approval according to the schedule outlined in Part (d) of this condition. The collection / control system design plan must be prepared and approved by a certified professional engineer and must meet the following requirements:

(a) The collection / control system as described in the design plan must meet the design requirements specified in Conditions 3.B.10 and 3.B.11;

(b) The collection / control system design plan must include any proposed alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions promulgated by 40 CFR Part 60, Subpart XXX;

(c) The collection / control system design plan must either conform with the specifications for active collection systems in Conditions 3.B.12 through 3.B.14 or include a demonstration to the MDEQ's satisfaction of the sufficiency of alternative provisions for Conditions 3.B.12 through 3.B.14;

(d) The collection / control system design plan must be submitted to the MDEQ for approval within one (1) year of either the first total non-methane organic compounds mass emission rate ("M_{NMOC}") report that demonstrates the M_{NMOC} equals or exceeds 34 megagrams (Mg) per year or the first measured methane concentration of 500 parts per million (ppm) or greater from the surface of the affected source, except for the following provisions:

(1) If the permittee elects to recalculate the M_{NMOC} after determining the average site-specific NMOC concentration ("C_{NMOC}") [outlined in Condition 3.B.9(b)] and the resulting rate is less than 34 Mg per year, annual periodic reporting must be resumed using the average site-specific C_{NMOC} until the calculated emission rate is equal to or greater than 34 Mg per year or the affected source is closed.

The revised M_{NMOC} report, with the recalculated emission rate based on TIER 2, must be submitted within 180 days of the first calculated exceedance of 34 Mg per year.

(2) If the permittee elects to recalculate the M_{NMOC} after determining a site-specific methane generation rate constant ("*k*") value [outlined in Condition 3.B.9(c)] and the resulting M_{NMOC} is less than 34 Mg per year, annual periodic reporting must be resumed. The resulting "*k*" value (in conjunction with the average site-specific C_{NMOC}) must be used in the emission rate

calculation until such a time as the emissions rate calculation results in an exceedance.

The revised M_{NMOC} report based on TIER 3 and the resulting "*k*" value must be submitted to the MDEQ within one (1) year of the first calculated emission rate equaling or exceeding 34 Mg per year.

(3) If the permittee elects to demonstrate that the site-specific surface methane emissions are below 500 ppm [outlined in Condition 3.B.9(d)], the permittee shall submit an annual TIER 4 surface emissions report until surface emissions readings of 500 ppm methane or greater are detected.

The MDEQ may request such additional information as may be necessary to verify the reported instantaneous surface methane emission readings. The TIER 4 emissions report must clearly identify the location, date and time (to the nearest second), average wind speeds (including wind gusts), and reading of any value 500 ppm methane or greater (other than non-repeatable, momentary readings). For location purposes, the permittee shall determine the latitude and longitude coordinates using an instrument with an accuracy of at least four (4) meters. The coordinates must be in decimal degrees with at least five (5) decimal places. The TIER 4 surface emission report must also include the results of the most recent TIER 1 and TIER 2 analyses to verify that the M_{NMOC} does not exceed 50 Mg per year.

(i) The initial TIER 4 surface emissions report must be submitted annually, starting within thirty (30) days of completing the fourth consecutive quarter of TIER 4 surface emissions monitoring that indicates the site-specific surface methane emissions are below 500 ppm;

(ii) The TIER 4 surface emissions report must be submitted within 1 year of the first measured surface exceedance of 500 ppm methane.

(e) The permittee must notify the MDEQ that the design plan is completed and submit a copy of the plan's signature page. The MDEQ will then have ninety (90) days to decide whether the design plan should be submitted for review. If the MDEQ chooses to review the plan, the approval process continues as described in Part (f) of this condition. However, if the MDEQ indicates that submission is not required or does not respond within 90 days, the permittee may continue to implement the plan with the recognition that the permittee is proceeding at their own risk.

In the event that the design plan is required to be modified to obtain approval, the permittee must take any steps necessary to conform any prior actions to the approved design plan and any failure to do so could result in an enforcement action.

(f) Upon receipt of an initial or revised design plan, the MDEQ must review the information submitted and either approve it, disapprove it, or request that additional information be submitted. Because of the many site-specific factors involved with landfill gas system design, alternative systems may be necessary.

If the MDEQ does not approve a design plan, disapprove a design plan, nor request that additional information be submitted within 90 days of receiving a design plan, the permittee may continue with implementation of the design plan, recognizing they would be proceeding at their own risk.

(Ref: 40 CFR 60.767(c); Subpart XXX)

5.C.8 For Emission Point AA-000, the permittee shall submit a revised design plan to the MDEQ for approval under the following provisions:

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

(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 MDEQ as specified in Condition 5.C.7.

(Ref: 40 CFR 60.767(d); Subpart XXX)

5.C.9 For Emission Point AA-000, the permittee shall submit a closure report to the MDEQ within thirty (30) days of ceasing the acceptance of waste at the affected source. The MDEQ may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements promulgated by 40 CFR 258.60, Subpart F.

If a closure report has been submitted to the MDEQ, no additional waste material may be placed into the affected source without filing a notification of modification as described by 40 CFR 60.7(a)(4), Subpart A.

(Ref: 40 CFR 60.767(e); Subpart XXX)

5.C.10 For Emission Point AA-000, the permittee shall submit an equipment removal report to the MDEQ thirty (30) days prior to the removal or the operation cessation of any

control equipment. The report shall contain the following items:

(a) A copy of the closure report submitted in accordance with Condition 5.C.9;

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

(c) Dated copies of three (3) successive non-methane organic compounds ("*NMOC*") emission rate reports demonstrating that the affected source is no longer emitting 34 megagrams (Mg) or greater of NMOC per year.

(Ref: 40 CFR 60.767(f); Subpart XXX)

5.C.11 For Emission Point AA-000, when using an active collection system designed in accordance with Condition 3.B.10(a), the permittee shall submit to the MDEQ an annual report that includes the following recorded information:

(a) The value and length of time for each exceedance of every applicable parameter monitored in Conditions 5.B.11 and 5.B.12;

(b) The description and duration of all periods when the gas stream was diverted from the control device or treatment system through a bypass line or the indication of bypass flow;

(c) The description and duration of all periods when the control device or treatment system was not operating and length of time the either component was not operating;

(d) All periods when the overall gas collection system was not operating;

(e) The location of each exceedance of the 500 parts per million (ppm) methane concentration criteria outlined in Condition 3.B.10(e) and the concentration recorded at each location for which an exceedance was recorded in the previous month.

For location purposes, the permittee shall determine the latitude and longitude coordinates using an instrument with an accuracy of at least four (4) meters. The coordinates must be in decimal degrees with at least five (5) decimal places.

(f) The date of installation and the location of each well or collection system expansion added pursuant to Conditions 5.B.7 through 5.B.9 and 5.B.10(d);

(g) For any corrective action analysis for which corrective actions are required in either Condition 5.B.7 or Condition 5.B.8 and that take more than 60 days to correct the exceedance:

(1) the root cause analysis conducted, including a description of the recommended corrective action(s);

(2) the date for corrective action(s) already completed following the positive pressure reading; and

(3) for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.

(Ref: 40 CFR 60.767(g); Subpart XXX)

5.C.12 For Emission Point AA-000, the permittee shall submit the results of any performance test (as defined by 40 CFR 60.8, Subpart A) required by this permit to the EPA and the MDEQ within sixty (60) days of concluding the testing event. The procedure for submitting the results to EPA is as described in either 40 CFR 60.767(i)(1)(i) or (ii), Subpart XXX.

For any initial performance stack test specifically required by Condition 3.B.11, the resulting report (as defined by 40 CFR 60.8, Subpart A) shall also include the following information:

(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;

(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;

(c) Documentation on the presence of asbestos or nondegradable waste material for each area from which collection wells have been excluded based on the presence of asbestos or nondegradable waste material;

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

(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 affected source; and

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

(40 CFR 60.767(h) and (i); Subpart XXX)

5.C.13 For Emission Point AA-000, the permittee shall submit a report in accordance with the following applicable provisions:

(a) For corrective action that is required by Condition 5.B.7 or Condition 5.B.8 and is expected to take longer than 120 days from the initial exceedance to complete, the permittee shall submit the root cause analysis, the corrective action analysis, and a corresponding implementation timeline to the MDEQ as soon as practicable but no later than 75 days after the first measurement of positive pressure or a temperature monitoring value of 131ºF or greater. The MDEQ must approve the plan for corrective action and the corresponding timeline.

(b) For corrective action that is required by Condition 5.B.7 or Condition 5.B.8 and is not completed within 60 days after the initial exceedance, the permittee shall submit a notification to the MDEQ as soon as practicable but no later than 75 days after the first measurement of positive pressure or temperature exceedance.

(Ref: 40 CFR 60.767(j); Subpart XXX)

5.C.14 For Emission Point AA-000, the permittee shall provide notification of the date(s) it intends to demonstrate that site-specific surface methane emissions are below 500 parts per million (ppm) methane, [based on TIER 4 – outlined in Condition 3.B.9(d)]. The notification must also include a description of the wind barrier to be used during the surface emission. The referenced notification must be postmarked not less than 30 days prior to the aforementioned demonstration.

If there is a delay to the initially scheduled TIER 4 surface emissions monitoring date due to weather conditions [including not meeting the wind requirements outlined in Condition 3.B.9(d)(1)(iii)], the permittee shall notify the MDEQ no later than 48 hours before any delay or cancellation in the original test date, and arrange an updated date with the MDEQ by mutual agreement.

(Ref: 40 CFR 60.767(l); Subpart XXX)

SECTION 6. ALTERNATIVE OPERATING SCENARIOS

6.1 None permitted.

SECTION 7. TITLE VI REQUIREMENTS

The following are applicable or potentially applicable requirements originating from Title VI of the Clean Air Act – Stratospheric Ozone Protection. The full text of the referenced regulations may be found on-line at **http://www.ecfr.gov/** under Title 40, or DEQ shall provide a copy upon request from the permittee.

7.1 If the permittee produces, transforms, destroys, imports or exports a controlled substance or imports or exports a controlled product, the permittee shall comply with the applicable requirements of 40 CFR Part 82, Subpart A – Production and Consumption Controls.

7.2 If the permittee performs service on a motor vehicle for consideration when this service involves the refrigerant in the motor vehicle air conditioner (MVAC), the permittee shall comply with the applicable requirements of 40 CFR Part 82, Subpart B – Servicing of Motor Vehicle Air Conditioners.

7.3 The permittee shall comply with the applicable requirements of 40 CFR Part 82, Subpart E – The Labeling of Products Using Ozone-Depleting Substances, for the following containers and products:

(a) All containers in which a class I or class II substance is stored or transported;

(b) All products containing a class I substance; and

(c) All products directly manufactured with a process that uses a class I substance, unless otherwise exempted by this subpart or, unless EPA determines for a particular product that there are no substitute products or manufacturing processes for such product that do not rely on the use of a class I substance, that reduce overall risk to human health and the environment, and that are currently or potentially available. If the EPA makes such a determination for a particular product, then the requirements of this subpart are effective for such product no later than January 1, 2015.

7.4 If the permittee performs any of the following activities, the permittee shall comply with the applicable requirements of 40 CFR Part 82, Subpart F – Recycling and Emissions Reduction:

(a) Servicing, maintaining, or repairing appliances;

(b) Disposing of appliances, including small appliances and motor vehicle air conditioners; or

(c) Refrigerant reclaimers, technician certifying programs, appliance owners and

operators, manufacturers of appliances, manufacturers of recycling and recovery equipment, approved recycling and recovery equipment testing organizations, as well as persons selling, offering for sale, and/or purchasing class I, class II, or non-exempt substitute refrigerants.

7.5 The permittee shall be allowed to switch from any ozone-depleting substance to any acceptable alternative that is listed in the Significant New Alternatives Policy (SNAP) program promulgated pursuant to 40 CFR Part 82, Subpart G – Significant New Alternatives Policy Program. The permittee shall also comply with any use conditions for the acceptable alternative substance.

7.6 If the permittee performs any of the following activities, the permittee shall comply with the applicable requirements of 40 CFR Part 82, Subpart H – Halon Emissions Reduction:

(a) Any person testing, servicing, maintaining, repairing, or disposing of equipment that contains halons or using such equipment during technician training;

(b) Any person disposing of halons;

(c) Manufacturers of halon blends; or

(d) Organizations that employ technicians who service halon-containing equipment.

APPENDIX A

List of Abbreviations Used In this Permit

11 Miss. Admin. Code Pt. 2, Ch. 1.	Air Emission Regulations for the Prevention, Abatement, and Control of Air Contaminants
11 Miss. Admin. Code Pt. 2, Ch. 2.	Permit Regulations for the Construction and/or Operation of Air Emissions Equipment
11 Miss. Admin. Code Pt. 2, Ch. 3.	Regulations for the Prevention of Air Pollution Emergency Episodes
11 Miss. Admin. Code Pt. 2, Ch. 4.	Ambient Air Quality Standards
11 Miss. Admin. Code Pt. 2, Ch. 5.	Regulations for the Prevention of Significant Deterioration of Air Quality
11 Miss. Admin. Code Pt. 2, Ch. 6.	Air Emissions Operating Permit Regulations for the Purposes of Title V of the Federal Clean Air Act
11 Miss. Admin. Code Pt. 2, Ch. 7.	Acid Rain Program Permit Regulations for Purposes of Title IV of the Federal Clean Air Act
BACT	Best Available Control Technology
CEM	Continuous Emission Monitor
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
CO	Carbon Monoxide
COM	Continuous Opacity Monitor
COMS	Continuous Opacity Monitoring System
DEQ	Mississippi Department of Environmental Quality
EPA	United States Environmental Protection Agency
gr/dscf	Grains Per Dry Standard Cubic Foot
HP	Horsepower
HAP	Hazardous Air Pollutant
lbs/hr	Pounds per Hour
M or K	Thousand
MACT	Maximum Achievable Control Technology
MM	Million
MMBTUH	Million British Thermal Units per Hour
NA	Not Applicable
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emissions Standards for Hazardous Air Pollutants, 40 CFR 61 or National Emission Standards for Hazardous Air Pollutants for Source Categories, 40 CFR 63
NMVOC	Non-Methane Volatile Organic Compounds
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standards, 40 CFR 60
O&M	Operation and Maintenance
PM	Particulate Matter
PM_{10}	Particulate Matter less than 10 μm in diameter
ppm	Parts per Million
PSD	Prevention of Significant Deterioration, 40 CFR 52
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
TPY	Tons per Year
TRS	Total Reduced Sulfur
VEE	Visible Emissions Evaluation
VHAP	Volatile Hazardous Air Pollutant
VOC	Volatile Organic Compound