

PUBLIC NOTICE

Northwest Tennessee Disposal Corporation has applied to the Tennessee Department of Environment and Conservation, Division of Air Pollution Control for renewal of their major source (Title V) operating permit pursuant to the provisions of Tennessee Air Pollution Control Regulations 1200-03-09-.02(11) (Title V Regulations). A major source operating permit is required by both the Federal Clean Air Act and Tennessee's air pollution control regulations. However, it should be noted that this facility has a current major source operating permit.

The applicant is **Northwest Tennessee Disposal Corporation**, with a site address of 518 Beech Chapel Road, Union City, TN 38261. They have applied for renewal of their existing major source (Title V) operating permit for their landfill operation.

EPA has agreed to treat this draft Part 70 permit as a proposed Part 70 permit and to perform its 45-day review provided by the law concurrently with the public notice period. If any substantive comments are received, EPA's 45-day review period will cease to be performed concurrently with the public notice period. In this case, EPA's 45-day review period will start once the public notice period has been completed and EPA receives notification from the Tennessee Air Pollution Control Division that comments have been received and resolved. The status regarding EPA's 45-day review of these permits and the deadline for submitting a citizen's petition can be found at the following website address:

<https://www.epa.gov/caa-permitting/tennessee-proposed-title-v-permits>

Copies of the application materials and draft permits are available for public inspection during normal business hours at the following locations:

Jackson Environmental Field Office
Division of Air Pollution Control
1625 Hollywood Drive
Jackson, TN 38305

and

Tennessee Department of Environment and Conservation
Division of Air Pollution Control
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 15th Floor
Nashville, TN 37243

Electronic copies of the draft permits are available by accessing the TDEC internet site located at:

<https://www.tn.gov/environment/ppo-public-participation/ppo-public-participation/ppo-air.html>

Questions concerning the source(s) may be addressed to Eric King at (615) 532-0546 or by e-mail at eric.king@tn.gov.

Interested parties are invited to review these materials and comment. In addition, a public hearing may be requested at which written or oral presentations may be made. To be considered, written comments or requests for a public hearing must be received no later than 4:30 PM on November 19, 2023. To assure that written comments are received and addressed in a timely manner, written comments must be submitted using one of the following methods:

1. **Mail, private carrier, or hand delivery:** Address written comments to Ms. Michelle W. Owenby, Director, Division of Air Pollution Control, William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue 15th Floor, Nashville, Tennessee 37243.
2. **E-mail:** Submit electronic comments to air.pollution.control@tn.gov.

A final determination will be made after weighing all relevant comments.

Individuals with disabilities who wish to review information maintained at the above-mentioned depositories should contact the Tennessee Department of Environment and Conservation to discuss any auxiliary aids or services needed to facilitate such review. Such contact may be in person, by writing, telephone, or other means, and should be made no less than ten days prior to the end of the public comment period to allow time to provide such aid or services. Contact the Tennessee Department of Environment and Conservation ADA Coordinator, William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue 22nd Floor, Nashville, TN 37243, 1-(866)-253-5827. Hearing impaired callers may use the Tennessee Relay Service, 1-(800)-848-0298.

Air Pollution Control DATE: **October 20, 2023**

Assigned to – E. King

TITLE V PERMIT STATEMENT

Facility Name: Northwest Tennessee Disposal Corporation

City: Union City

County: Obion

Date Renewal Application Received: July 11, 2022

Date Application Deemed Complete: July 11, 2022

Emission Source Reference No.: 66-0113

Permit No.: 580562

INTRODUCTION

This narrative is being provided to assist the reader in understanding the content of the attached Title V operating permit. This Title V Permit Statement is written pursuant to Tennessee Air Pollution Control Rule 1200-03-09-.02(11)(f)1.(v). The primary purpose of the Title V operating permit is to consolidate and identify existing state and federal air requirements applicable to Northwest Tennessee Disposal Corporation (NWTDC) and to provide practical methods for determining compliance with these requirements. The following narrative is designed to accompany the Title V Operating Permit. It initially describes the facility receiving the permit, then the applicable requirements and their significance, and finally the compliance status with those applicable requirements. This narrative is intended only as an adjunct for the reviewer and has no legal standing. Any revisions made to the permit in response to comments received during the public participation process will be described in an addendum to this narrative.

Acronyms

PSD - Prevention of Significant Deterioration
NESHAP - National Emission Standards for Hazardous Air Pollutants
NSPS - New Source Performance Standards
MACT - Maximum Achievable Control Technology
NSR - New Source Review
GHGs - Greenhouse Gases
GCCS - Gas Collection and Control System
CAM - Compliance Assurance Monitoring
NMOCs - Non-methane organic compounds
AEAR - Actual Emissions Analysis is Required

Title V Permit #580562 Statement

Source ID: 66-0113

TBD, 2023

Page 1 of 6

I. Identification Information

A. Source Description

The municipal solid waste (MSW) landfill has a gas collection and control system (GCCS), which includes an open flare (4,700 CFM) to control landfill gas emissions. The MSW landfill is subject the requirements in 40 CFR 62 Subpart OOO as of June 21, 2021. A Design Capacity and Non-methane Organic Compound (NMOC) Emission Rate Report were submitted September 16, 2021 as required. The GCCS is required to comply with the Subpart OOO as of March 16, 2024, which is 30 months after the date (September 16, 2021) the facility reported that it exceeded the 34 megagrams per year (Mg/yr) NMOC threshold via LandGEM, according to 40 CFR 62 Subpart OOO. The GCCS installed and operating at NWTDC is subject to the requirements of Subpart OOO and 40 CFR 63 Subpart AAAAA as of March 16, 2024 (see APC 2 of renewal application). NWTDC has elected to comply with the provisions of 40 CFR 63 Subpart AAAAA (§63.1958, §63.1960, and §63.1961) as allowed in §62.16716, §62.16720, and §62.16722.

B. Facility Classification

1. Attainment or Non-Attainment Area Location

Area is designated as an attainment area for all criteria pollutants.

2. Company is located in a Class II area (Primarily, this means that the facility is not located within a national park or national wilderness area; see 40 CFR 52.21(e) for a complete definition).

C. Regulatory Status

1. PSD/NSR

This facility is not a major source under PSD.

2. Title V Major Source Status by Pollutant

Pollutant	Is the pollutant emitted?	If emitted, what is the facility's status?	
		Major Source Status	Non-Major Source Status
PM	Yes	No	Yes
PM ₁₀	Yes	No	Yes
SO ₂	Yes	Yes	No
VOC	Yes	No	Yes
NO _x	Yes	No	Yes
CO	Yes	Yes	No
Individual HAP	Yes	No	Yes
Total HAPs	Yes	No	Yes

3. MACT Standards

The facility is currently subject to MACT Standards for asbestos 40 CFR 61 subpart M (National Emission Standard for Asbestos), 40 CFR 63 subpart CCCCC (National Emission Standards for Hazardous Air Pollutants for Source Category:

Gasoline Dispensing Facilities), and the facility will become subject to the requirements of 40 CFR 63 Subpart AAAA on March 16, 2024.

4. Program Applicability

Are the following programs applicable to the facility?

PSD: No

NESHAP: Yes, 40 CFR (see MACT standards above)

Federal Plan : Yes, 40 CFR 62 Subpart OOO

II. Compliance Information

A. Compliance Status

Is the facility currently in compliance with all applicable requirements? yes

III. Other Requirements

A. Emissions Trading

The facility is not involved in an emission trading program.

B. Acid Rain Requirements

This facility is not subject to any requirements in Title IV of the Clean Air Act.

C. Prevention of Accidental Releases

Not Applicable

IV. Public Participation Procedures

Notification of this draft permit was emailed to the following environmental agencies:

1. EPA Region IV
2. Arkansas Department of Pollution Control and Ecology, Air Division
3. Kentucky Department for Environmental Protection, Air Pollution Control
4. Missouri Division of Environmental Quality, Air Pollution Control Program
5. Illinois Environmental Protection Agency, Division of Air Pollution Control

V. Permit History

May 10, 2006: Issue date of Title V Permit Renewal Permit 556545

Title V Operating Permit No. 556545 represents the first renewal of the original Title V Permit No. 548511 issued June 30, 1999.

December 6, 2012: Issue date of Title V Permit Renewal Permit 564507

Title V Operating Permit No. 564507 represents the second renewal of the original Title V Permit No. 548511 issued June 30, 1999.

February 2, 2018: Issue date of Title V Permit Renewal Permit 572770

Title V Operating Permit No. 572770 represents the third renewal of the original Title V Permit No. 548511 issued June 30, 1999. The permittee submitted a Tier 2 NMOC test report on February 12, 2018, which showed that emissions exceeded the 50 megagram threshold. The permittee also submitted a 5-year Tier 2 report, dated June 1, 2018, that projected the Site's NMOC emission rate to be less than 50 Mg/yr for the next five years (2018 through 2023 using the formula and procedures provided in § 60.754(a)(3)). Pursuant to §60.757(c)(1),

The following sources were added to Title V permit renewal 572770; Landfill Gas Collection and Control System and 500 gallon gasoline above ground storage tank which is subject to 40 CFR 63 Subpart CCCCCC

66-0113: Changes Made in Title V Renewal Permit 572770 (Issued on February 2, 2018)

Condition or Section	Change (Title V Renewal Permit)
Cover Page	
Conditions A8, A12, B6, and C2	Conditions A8, A12, B6, and C2 had minor changes and are also modified in accordance with the March 3, 2016, and May 5, 2017 "shell" update. The Title V "shell" conditions are sections A, B, C and D.
E1	Conditions E1 was updated to reflect Tennessee's standard language for Title V fees.
E2	Condition E2 was updated to reflect Tennessee's standard language for Title V reporting.
E2(c)	NSPS and MACT semiannual reports.
E3-4	Updated the Responsible Official, Technical Contact and Billing Contact.
E3-6	Updated condition with Asbestos Subpart M disposal language.
E4	Updated Source description now that the landfill emits more than 50 megagrams per year of non-methane organic compounds.
E4-1 – E4-11	Landfill gas collection system requirements were added to the Title V renewal.
E4-12 – E4-16	MACT requirements were added to the Title V renewal.
E4-17 – E4-19	500 Gallon Gasoline Storage Tank, subject to 40 CFR Subpart 63 NESHAP CCCCCC requirements added to the Title V Renewal.

May 6, 2019: Issue date of Minor Modification #1 to Title V Permit 572770

- The permittee submitted Title V Minor Modification #1 application dated August 27, 2018, to remove the gas collection and control requirements from permit #572770 as provided in the New Source Performance Standards (NSPS) Subpart WWW and the National Emissions Standard for Hazardous Air Pollutants (NESHAP) Subpart AAAA.
- The permittee was allowed to retest the source. The retest report, dated June 1, 2018, estimated the NMOC emission rate to be less than 50 Mg/yr, but greater than 34 Mg/yr. The permittee submitted a retest report dated June 1, 2018, which estimated NMOC emission rate to be less than 50 Mg/yr for the years 2018 through 2023 using the formula and procedures provided in § 60.754(a)(3). The test was conducted on March 20, 21, 2018, and April 12, 2018, and, as a result of the test, the next Tier 2 test must be conducted no later than March 20, 2023.
- The permittee submitted Title V Administrative Amendment #1 request date August 22, 2019, to change the test report date from December 21, 2020, to March 20, 2023 (Condition E4-2 of permit #572770).

October 11, 2019: Issue date of Administrative Amendment #1 to Title V Permit 572770

- The EPA promulgated the federal plan 40 CFR 62 Subpart OOO with an effective date of June 21, 2021.

- The facility submitted a Design Capacity Report and NMOC Emission Rate Report on September 16, 2021 indicating NMOC emissions greater than 34 Mg/yr.
- The permittee submitted the Initial Liquids Addition Reporting dated June 16, 2022. The report was found to be adequate.

July 7, 2022: Title V Permit Renewal Application

- NWTDC submitted the Title V Renewal Application (July 7, 2022) for Permit No. 580562, the fourth renewal of the original Title V Permit No. 548511 issued June 30, 1999. NWTDC is not required to operate the voluntary GCCS as a fully functional and compliant GCCS in accordance with 40 CFR 62 Subpart OOO until March 16, 2024, which is 30 months after the date (September 16, 2021) the landfill reported that it exceeded the 34 Mg NMOC threshold via LandGEM. NWTDC has opted to comply with the full requirements of 40 CFR 63 Subpart AAAA by March 16, 2024 (see APC 2 of renewal application).
- The GCCS is required to comply with the Subpart OOO as of March 16, 2024, which is 30 months after the date (September 16, 2021) the facility reported that it exceeded the 34 megagrams per year (Mg/yr) NMOC threshold via LandGEM, according to 40 CFR 62 Subpart OOO.
- The GCCS installed and operating at NWTDC will be subject to the requirements of Subpart OOO and 40 CFR 63 Subpart AAAA as of March 16, 2024 (see APC 2 of renewal application).
- NWTDC has elected to comply with the provisions of 40 CFR 63 Subpart AAAA (§63.1958, §63.1960, and §63.1961) as allowed in §62.16716, §62.16720, and §62.16722.

September 15, 2022: Landfill Gas Collection and Control System Design Plan

The permittee submitted a Landfill Gas Collection and Control System Design Plan, which was found to be adequate and signed by a Professional Engineer.

May 16, 2023: Increment of Progress Notification

The permittee submitted Increment of Progress Notification. The on-site construction was completed, and the permittee shall achieve final compliance with 40 CFR 62 Subpart OOO and 40 CFR 63 Subpart AAAA by March 16, 2024.

June 8, 2023: Liquids Addition Reporting

The annual liquids addition report was submitted by the facility and found to be adequate.

VI. Response to Comments

General Information

Date of Public Notice	TBD
Date of Public Hearing:	TBD

Summary of comments

Commenter	Comments	Response
EPA	TBD	
Public	TBD	

VII. Summary of Potential Emissions by Source Number or Source Type

The following potential emissions are not included in the permit. These emissions are used for reference only.

Source	PM (TPY)	SO ₂ (TPY)	CO (TPY)	VOC (TPY)	NO _x (TPY)	HAP (TPY)	GHG (TPY/1000)
66-0113-01	9.70	104.50	193.90	1.30	42.50		
Fugitive ²				8.80			
Fugitive ³	21.00						
66-0113-00 ¹	30.70	104.50	193.90	10.10	42.50	10.10	N/A

¹ Source 00 represents facility wide emissions. HAP emissions are not included in the VOC emissions.

² Fugitive emissions emerging from landfill subsurface.

³ Fugitive dust due to vehicle activity at the landfill.

VIII. Summary of Emissions for Fee Purposes

Landfills are not subject to fees for fugitive PM emissions, as the Division does not set allowable emissions for these emissions. Fugitive PM emissions are not included in the Fee Emissions Summary Table (Section E1: Fee Emissions Summary) because they are not subject to fees.

Source	PM (TPY)	SO ₂ (TPY)	CO (TPY)	VOC (TPY)	NO _x (TPY)	HAP (TPY)	GHG (TPY/1000)
66-0113-01*	9.70	104.50	193.90	1.30	42.50		
Fugitive ²				8.80			
66-0113-00 ¹	9.70	104.50	193.90	10.10	42.50	10.10	N/A

¹ Source 00 represents facility wide emissions. HAP emissions are not included in the VOC emissions.

* The permit contains allowable emission limitations only for fee purposes (Section E1: Fee Emissions Summary). The Division does not set allowable emission limits in permits for landfills. However, the Permittee must pay fees pursuant to 1200-03-26-.02(2)(d)3. Emission fees are assessed for fugitive emissions, but are not assessed for fugitive PM emissions. Because the Division does not set fugitive PM limit in landfill permits, the Permittee is not liable for payment of fugitive PM emissions. Fugitive PM emissions are not in E1 of the permit or in the Air Pollution Control Database, Smoglog Table of Emissions. Also, emission fees are not assessed for CO and Green House Gas (GHG) emissions, fugitive or otherwise.

STATE OF TENNESSEE
AIR POLLUTION CONTROL BOARD
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
NASHVILLE, TENNESSEE 37243



OPERATING PERMIT (TITLE V) Issued Pursuant to Tennessee Air Quality Act

This permit fulfills the requirements of Title V of the Federal Clean Air Act (42 U.S.C. 7661a-7661e) and the federal regulations promulgated thereunder at 40 CFR Part 70. (FR Vol. 57, No. 140, Tuesday, July 21, 1992 p.32295-32312). This permit is issued in accordance with the provisions of paragraph 1200-03-09-.02(11) of the Tennessee Air Pollution Control Regulations (TAPCR). The permittee has been granted permission to operate an air contaminant source in accordance with emissions limitations and monitoring requirements set forth herein.

Date Issued: TBD

Draft Permit Number:

Date Expires: TBD

580562

Issued To:

Northwest Tennessee Disposal Corporation

Installation Address:

518 Beech Chapel Road
Union City

Installation Description:

01: Municipal Solid Waste Landfill with Voluntary
Gas Collection and Control System (GCCS)

Part 62 Subpart OOO
NESHAP Part 61 Subpart M
NESHAP Part 63 Subpart AAAA
NESHAP Part 63 Subpart CCCCCC

Facility ID: 66-0113

Renewal Application Due Date:

Between January, 2027, and March, 2028

Primary SIC: 4953

Information Relied Upon:

NMOC Emission Rate Report dated September 16, 2021
Renewal Application dated July 7, 2022
Increments of Progress Notification dated May 16, 2023

(continued on the next page)

Draft

TECHNICAL SECRETARY

No Authority is Granted by this Permit to Operate, Construct, or Maintain any Installation in Violation of any Law, Statute, Code, Ordinance, Rule, or Regulation of the State of Tennessee or any of its Political Subdivisions.

POST AT INSTALLATION ADDRESS

CONTENTS

SECTION A

GENERAL PERMIT CONDITIONS

A1. Definitions 1

A2. Compliance requirement..... 1

A3. Need to halt or reduce activity..... 1

A4. The permit..... 1

A5. Property rights..... 1

A6. Submittal of requested information 1

A7. Severability clause 2

A8. Fee payment..... 2

A9. Permit revision not required 2

A10. Inspection and entry..... 2

A11. Permit shield 3

A12. Permit renewal and expiration..... 3

A13. Reopening for cause 3

A14. Permit transference 4

A15. Air pollution alert..... 4

A16. Construction permit required..... 4

A17. Notification of changes..... 4

A18. Schedule of compliance..... 5

A19. Title VI..... 5

A20. 112 (r)..... 5

SECTION B

**GENERAL CONDITIONS for MONITORING,
REPORTING, and ENFORCEMENT**

B1. Recordkeeping 6

B2. Retention of monitoring data..... 6

B3. Reporting 6

B4. Certification 6

B5. Annual compliance certification..... 6

B6. Submission of compliance certification 7

B7. Emergency provisions 7

B8. Excess emissions reporting..... 7

B9. Malfunctions, startups and shutdowns - reasonable measures required..... 8

B10. Reserved..... 8

B11. Report required upon the issuance of notice of violation 8

CONTENTS



SECTION C

PERMIT CHANGES

C1.	Operational flexibility changes.....	9
C2.	Section 502(b)(10) changes.....	9
C3.	Administrative amendment.....	9
C4.	Minor permit modifications.....	10
C5.	Significant permit modifications.....	10
C6.	New construction or modifications.....	10



SECTION D

GENERAL APPLICABLE REQUIREMENTS

D1.	Visible emissions.....	11
D2.	General provisions and applicability for non-process gaseous emissions.....	11
D3.	Non-process emission standards.....	11
D4.	General provisions and applicability for process gaseous.....	11
D5.	Particulate emissions from process emission sources.....	11
D6.	Sulfur dioxide emission standards.....	11
D7.	Fugitive dust.....	11
D8.	Open burning.....	12
D9.	Asbestos.....	12
D10.	Annual certification of compliance.....	12
D11.	Emission Standards for Hazardous Air Pollutants.....	12
D12.	Standards of Performance for New Stationary Sources.....	12
D13.	Gasoline Dispensing Facilities.....	12
D14.	Internal Combustion Engines.....	12
D15.	Maintenance and Repair.....	12

CONTENTS

SECTION E

SOURCE SPECIFIC EMISSION STANDARDS, OPERATING LIMITATIONS, and MONITORING, RECORDKEEPING and REPORTING REQUIREMENTS

E1.	Fee payment: actual emissions basis	13
E2.	Reporting requirements	16
	(a) Reserved	
	(b) Annual compliance certification	
	(c) Retention of Records	
	(d) 40 CFR 62 Subpart OOO and 40 CFR 63 Subpart AAAA Reports	
E3.	General Permit Conditions	17
E4.	Landfill Operation prior to March 16, 2024	20
E5.	Landfill Operation subsequent to March 15, 2024	29
END OF PERMIT NUMBER 580562		44
ATTACHMENT 1	Opacity Matrix Decision Tree for EPA Method 9	1 page
ATTACHMENT 2	Applicable Parts from Code of Federal Regulations, Title 40, Part 61, Subpart M, National Emission Standards for Asbestos	8 pages
ATTACHMENT 3	Tennessee Air Pollution Control Regulations, Applicable Parts from Rule 1200-03-11-.02, Hazardous Air Contaminants-Asbestos	11 pages
ATTACHMENT 4	General Provisions for 40 CFR Part 62 Subpart OOO	1 page
ATTACHMENT 5	General Provisions for 40 CFR 61 Subpart M	1 page
ATTACHMENT 6	Title V Fee Selection Form (APC 36)	2 pages
ATTACHMENT 7	Table 1 to Subpart OOO of Part 62 Generic Compliance Schedule and Increments of Progress	1 page
ATTACHMENT 8	Applicability of NESHAP General Provisions to Subpart AAAA	3 pages
ATTACHMENT 9	Alternative CO Test Methods	6 pages

SECTION A

GENERAL PERMIT CONDITIONS

A permit issued under the provisions of Tennessee Air Pollution Control Regulations (TAPCR) paragraph 1200-03-09-.02(11) is a permit issued pursuant to the requirements of Title V of the Federal Act and its implementing Federal regulations promulgated at 40 CFR, Part 70.

A1. Definitions. Terms not otherwise defined in the permit shall have the meaning assigned to such terms in the referenced regulations.

TAPCR 1200-03 and 0400-30

A2. Compliance requirement. All terms and conditions in a permit issued pursuant to TAPCR paragraph 1200-03-09-.02(11), including any provisions designed to limit a source's potential to emit, are enforceable by the Administrator and citizens under the Federal Act. The permittee shall comply with all conditions of its permit. Except for requirements specifically designated herein as not being federally enforceable (State Only), non-compliance with the permit requirements is a violation of the Federal Act and the Tennessee Air Quality Act and is grounds for enforcement action; for a permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. Non-compliance with permit conditions specifically designated herein as not being federally enforceable (State Only) is a violation of the Tennessee Air Quality Act and may be grounds for these actions.

TAPCR 1200-03-09-.02(11)(e)2(i) and 1200-03-09-.02(11)(e)1(vi)(I)

A3. Need to halt or reduce activity. The need to halt or reduce activity is not a defense for noncompliance. 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 the permit. However, nothing in this item shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in assessing penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continuing operations.

TAPCR 1200-03-09-.02(11)(e)1(vi)(II)

A4. The permit. The permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

TAPCR 1200-03-09-.02(11)(e)1(vi)(III)

A5. Property rights. The permit does not convey any property rights of any sort, or any exclusive privilege.

TAPCR 1200-03-09-.02(11)(e)1(vi)(IV)

A6. Submittal of requested information. The permittee shall furnish to the Technical Secretary, within a reasonable time, any information that the Technical Secretary may request in writing to determine whether cause exists for modifying, revoking and reissuing, or termination of the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Technical Secretary copies of records required to be kept by the permit. If the permittee claims that such information is confidential, the Technical Secretary may review that claim and hold the information in protected status until such time that the Board can hear any contested proceedings regarding confidentiality disputes. If the information is desired by EPA, the permittee may mail the information directly to EPA. Any claims of confidentiality for federal purposes will be determined by EPA.

TAPCR 1200-03-09-.02(11)(e)1(vi)(V)

- A7. Severability clause.** The requirements of this permit are severable. A dispute regarding one or more requirements of this permit does not invalidate or otherwise excuse the permittee from their duty to comply with the remaining portion of the permit.

TAPCR 1200-03-09.02(11)(e)1(v)

- A8. Fee payment.**

(a) The permittee shall pay an annual Title V emission fee based upon the responsible official's choice of actual emissions, allowable emissions, or a combination of actual and allowable emissions; and on the responsible official's choice of annual accounting period. An emission cap of 4,000 tons per year per regulated pollutant per major source SIC Code shall apply to actual or allowable based emission fees. A Title V annual emission fee will not be charged for emissions in excess of the cap. Title V annual emission fees will not be charged for carbon monoxide or for greenhouse gas pollutants solely because they are greenhouse gases.

(b) Title V sources shall pay allowable based emission fees until the beginning of the next annual accounting period following receipt of their initial Title V operating permit. At that time, the permittee shall begin paying their Title V fee based upon their choice of actual or allowable based fees, or mixed actual and allowable based fees. Once permitted, the Responsible Official may revise their existing fee choice by submitting a written request to the Division no later than December 31 of the annual accounting period for which the fee is due.

(c) When paying annual Title V emission fees, the permittee shall comply with all provisions of TAPCR Rule 1200-03-26-.02 and paragraph 1200-03-09-.02(11) applicable to such fees.

(d) Where more than one allowable emission limit is applicable to a regulated pollutant, the allowable emissions for the regulated pollutants shall not be double counted. Major sources subject to the provisions of TAPCR paragraph 1200-03-26-.02(9) shall apportion their emissions as follows to ensure that their fees are not double counted.

1. Sources that are subject to federally promulgated hazardous air pollutant standards that can be imposed under TAPCR Chapter 0400-30-38 or Chapter 1200-03-31 will place such regulated emissions in the regulated hazardous air pollutant (HAP) category.

2. A category of miscellaneous HAPs shall be used for hazardous air pollutants listed at TAPCR part 1200-03-26-.02(2)(i)12 that are not subject to federally promulgated hazardous air pollutant standards under 40 CFR 60, 61, or 63 or TAPCR chapter 1200-03-31.

3. HAPs that are also in the family of volatile organic compounds, particulate matter, or PM₁₀ shall not be placed in either the regulated HAP category or miscellaneous HAP category.

4. Sources that are subject to a provision of TAPCR chapter 1200-03-16 New Source Performance Standards (NSPS) or chapter 0400-30-39 Standards of Performance for New Stationary Sources for pollutants that are neither particulate matter, PM₁₀, sulfur dioxide (SO₂), volatile organic compounds (VOC), nitrogen oxides (NO_x), or hazardous air pollutants (HAPs) will place such regulated emissions in an NSPS pollutant category.

5. The regulated HAP category, the miscellaneous HAP category, and the NSPS pollutant category are each subject to the 4,000 ton cap provisions of TAPCR subparagraph 1200-03-26-.02(2)(i).

6. Major sources that wish to pay annual emission fees for PM₁₀ on an allowable emission basis may do so if they have a specific PM₁₀ allowable emission standard. If a major source has a total particulate emission standard, but wishes to pay annual emission fees on an actual PM₁₀ emission basis, it may do so if the PM₁₀ actual emission levels are proven to the satisfaction of the Technical Secretary. The method to demonstrate the actual PM₁₀ emission levels must be made as part of the source's major source operating permit in advance in order to exercise this option. The PM₁₀ emissions reported under these options shall not be subject to fees under the family of particulate emissions. The 4,000 ton cap provisions of TAPCR subparagraph 1200-03-26-.02(2)(i) shall also apply to PM₁₀ emissions.

TAPCR 1200-03-26-.02 and 1200-03-09-.02(11)(e)1(vii)

- A9. Permit revision not required.** A permit revision will not be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or process for changes that are provided for in the permit.

TAPCR 1200-03-09-.02(11)(e)1(viii)

- A10. Inspection and entry.** Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Technical Secretary or an authorized representative to perform the following for the purposes of determining compliance with the permit applicable requirements:

(a) Enter upon, at reasonable times, the permittee's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of the -permit;

(b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of the 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 Clean Air Act and Chapter 1200-03-10 of the TAPCR, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.
- (e) "Reasonable times" shall be considered to be customary business hours unless reasonable cause exists to suspect noncompliance with the Act, TAPCR Division 1200-03 or any permit issued pursuant thereto and the Technical Secretary specifically authorizes an inspector to inspect a facility at any other time.

TAPCR 1200-03-09-.02(11)(e)3(ii)

A11. Permit shield.

- (a) Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements as of the date of permit issuance, provided that:
 - 1. Such applicable requirements are included and are specifically identified in the permit; or
 - 2. The Technical Secretary, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the permit includes the determination or a concise summary thereof.
- (b) Nothing in this permit shall alter or affect the following:
 - 1. The provisions of section 303 of the Federal Act (emergency orders), including the authority of the Administrator under that section. Similarly, the provisions of T.C.A. §68-201-109 (emergency orders) including the authority of the Governor under the section;
 - 2. 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;
 - 3. The applicable requirements of the acid rain program, consistent with section 408(a) of the Federal Act; or
 - 4. The ability of EPA to obtain information from a source pursuant to section 114 of the Federal Act.
- (c) Permit shield is granted to the permittee.
- (d) The permit shield does not apply to permit changes made under the minor permit modification procedures of TAPCR subpart 1200-03-09-.02(11)(f)5(ii) nor the administrative permit amendment procedures of TAPCR part 1200-03-09-.02(11)(f)4, except that the permit shield may be extended for administrative permit amendments that meet the relevant requirements of TAPCR subparagraph 1200-03-09-.02(11)(e), subparagraph 1200-03-09-.02(11)(f) and subparagraph 1200-03-09-.02(11)(g) for significant permit modifications.
- (e) The permit shield does not apply to off-permit changes made under the operational flexibility provisions of TAPCR part 1200-03-09-.02(11)(a)4.

TAPCR 1200-03-09-.02(11)(e)6 and 1200-03-09-.02(11)(f)4(iv)

A12. Permit renewal and expiration.

- (a) An application for permit renewal must be submitted at least 180 days, but no more than 270 days, prior to the expiration of this permit. Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted.
- (b) If the permittee submits a timely and complete application for permit renewal the source will not be considered to be operating without a permit until the Technical Secretary takes final action on the permit application, except as otherwise noted in TAPCR paragraph 1200-03-09-.02(11).
- (c) This permit, its shield provided in Condition A11, and its conditions will be extended and effective after its expiration date provided that the source has submitted a timely, complete renewal application to the Technical Secretary.

TAPCR 1200-03-09-.02(11)(f)2 and 3, 1200-03-09-.02(11)(d)1(i)(III), and 1200-03-09-.02(11)(a)2

A13. Reopening for cause.

- (a) A permit shall be reopened and revised prior to the expiration of the permit under any of the circumstances listed below:
 - 1. Additional applicable requirements under the Federal Act become applicable to the sources contained in this permit provided the permit has a remaining term of 3 or more years. Such a reopening shall be completed not 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 permit expiration date of this permit, unless the original has been extended pursuant to TAPCR part 1200-03-09-.02(11)(a)2.
 - 2. Additional requirements become applicable to an affected source under the acid rain program.
 - 3. The Technical Secretary or EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

4. The Technical Secretary or EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
- (b) Proceedings to reopen and issue a permit shall follow the same proceedings as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists, and not the entire permit. Such reopening shall be made as expeditiously as practicable.
- (c) Reopenings for cause shall not be initiated before a notice of such intent is provided to the permittee by the Technical Secretary at least 30 days in advance of the date that the permit is to be reopened except that the Technical Secretary may provide a shorter time period in the case of an emergency. An emergency shall be established by the criteria of T.C.A. 68-201-109 or other compelling reasons that public welfare is being adversely affected by the operation of a source that is in compliance with its permit requirements.
- (d) If the Administrator finds that cause exists to terminate, modify, or revoke and reissue a permit as identified in A13, the Administrator is required under federal rules to notify the Technical Secretary and the permittee of such findings in writing. Upon receipt of such notification, the Technical Secretary shall investigate the matter in order to determine if he/she agrees or disagrees with the Administrator's findings. If the Technical Secretary agrees with the Administrator's findings, the Technical Secretary shall conduct the reopening in the following manner:
1. The Technical Secretary shall, within 90 days after receipt of such notification, forward to EPA a proposed determination of termination, modification, or revocation and reissuance, as appropriate. If the Administrator grants additional time to secure permit applications or additional information from the permittee, the Technical Secretary shall have the additional time period added to the standard 90-day time period.
 2. EPA will evaluate the Technical Secretary's proposed revisions and respond as to their evaluation.
 3. If EPA agrees with the proposed revisions, the Technical Secretary shall proceed with the reopening in the same manner prescribed under Condition A13(b) and Condition A13(c).
 4. If the Technical Secretary disagrees with either the findings or the Administrator that a permit should be reopened or an objection of the Administrator to a proposed revision to a permit submitted pursuant to Condition A13(d), the Technical Secretary shall bring the matter to the Board at its next regularly scheduled meeting for instructions as to how the Division should proceed. The permittee shall be required to file a written brief expressing their position relative to the Administrator's objection and have a responsible official present at the meeting to answer questions for the Board. If the Board agrees that EPA is wrong in their demand for a permit revision, they shall instruct the Technical Secretary to conform to EPA's demand, but to issue the permit under protest preserving all rights available for litigation against EPA.

TAPCR 1200-03-09-.02(11)(f)6 and 7

- A14. Permit transference.** An administrative permit amendment allows for a change of ownership or operational control of a source where the Technical Secretary determines that no other change in the permit is necessary, provided that the following requirements are met:
- (a) Transfer of ownership permit application is filed consistent with the provisions of TAPCR paragraph 1200-03-09-.03(6), and
 - (b) written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to the Technical Secretary.

TAPCR 1200-03-09-.02(11)(f)4(i)(IV) and 1200-03-09-.03(6)

- A15. Air pollution alert.** When the Technical Secretary has declared that an air pollution alert, an air pollution warning, or an air pollution emergency exists, the permittee must follow the requirements for that episode level as outlined in TAPCR paragraph 1200-03-09-.03(1) and TAPCR Rule 1200-03-15-.03.

- A16. Construction permit required.** Except as exempted in TAPCR 1200-03-09-.04 or excluded in subparagraph TAPCR 1200-03-02-.01(1)(aa) or subparagraph TAPCR 1200-03-02-.01(1)(cc), this facility shall not begin the construction of a new air contaminant source or the modification of an air contaminant source which may result in the discharge of air contaminants without first having applied for and received from the Technical Secretary a construction permit for the construction or modification of such air contaminant source. The construction and operation of landfill waste disposal cells and landfill gas flares are exempt from the permitting requirements of this condition, except as the landfill operation may be regulated by the applicable requirements of 40 CFR 60 Subpart XXX, 40 CFR 60 Subpart Cc, 40 CFR 60 Subpart Cf, 40 CFR 62 Subpart OOO, or 40 CFR 63 Subpart AAAA.

TAPCR 1200-03-09-.01(1)(a)

- A17. Notification of changes.** The permittee shall notify the Technical Secretary 30 days prior to commencement of any of the following changes to an air contaminant source which would not be a modification requiring a construction permit.
- (a) change in air pollution control equipment
 - (b) change in stack height or diameter
 - (c) change in exit velocity of more than 25 percent or exit temperature of more than 15 percent based on absolute temperature.

TAPCR 1200-03-09-.02(7)

- A18. Schedule of compliance.** The permittee will comply with any applicable requirement that becomes effective during the permit term on a timely basis and no later than required by the provisions of the new applicable requirement. If the permittee is not in compliance the permittee must submit a schedule for coming into compliance which must include a schedule of remedial measure(s), including an enforceable set of deadlines for specific actions.

TAPCR 1200-03-09-.02(11)(d)3, 1200-03-09-.03(8), 0400-30-38, 0400-30-39, and 40 CFR Part 70.5(c)

A19. Title VI.

(a) The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR, Part 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in Subpart B:

1. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to Section 82.156.
2. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to Section 82.158.
3. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to Section 82.161.

(b) If the permittee performs a service on motor (fleet) vehicles when this service involves ozone depleting substance refrigerant in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR, Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

(c) The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR, Part 82, Subpart G, Significant New Alternatives Policy Program.

TAPCR 1200-03-09-.03(8)

- A20. 112 (r).** Sources which are subject to the provisions of Section 112(r) of the federal Clean Air Act or any federal regulations promulgated thereunder, shall annually certify in writing to the Technical Secretary that they are properly following their accidental release plan. The annual certification is due in the office of the Technical Secretary no later than January 31 of each year. Said certification will be for the preceding calendar year.

TAPCR 1200-03-32-.03(3)

SECTION B

GENERAL CONDITIONS for MONITORING, REPORTING, and ENFORCEMENT

- B1. Recordkeeping.** Monitoring and related record keeping shall be performed in accordance with the requirements specified in the permit conditions for each individual permit unit. In no case shall reports of any required monitoring and record keeping be submitted less frequently than every six months.
- (a) Where applicable, records of required monitoring information include the following:
1. The date, place as defined in the permit, and time of sampling or measurements;
 2. The date(s) analyses were performed;
 3. The company or entity that performed the analysis;
 4. The analytical techniques or methods used;
 5. The results of such analyses; and
 6. The operating conditions as existing at the time of sampling or measurement.
- (b) Digital data accumulation which utilizes valid data compression techniques shall be acceptable for compliance determination as long as such compression does not violate an applicable requirement and its use has been approved in advance by the Technical Secretary.
- TAPCR 1200-03-09-.02(11)(e)1(iii)
- B2. Retention of monitoring data.** The permittee shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.
- TAPCR 1200-03-09-.02(11)(e)1(iii)(II)II
- B3. Reporting.** Reports of any required monitoring and record keeping shall be submitted to the Technical Secretary in accordance with the frequencies specified in the permit conditions for each individual permit unit. Reports shall be submitted within 60 days of the close of the reporting period unless otherwise noted. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official. Reports required under "State only requirements" are not required to be certified by a responsible official.
- TAPCR 1200-03-09-.02(11)(e)1(iii)
- B4. Certification.** Except for reports required under "State Only" requirements, any application form, report or compliance certification submitted pursuant to the requirements of this permit shall contain certification by a responsible official of truth, accuracy and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.
- TAPCR 1200-03-09-.02(11)(d)4
- B5. Annual compliance certification.** The permittee shall submit annually compliance certifications with terms and conditions contained in Sections A, B, D and E of this permit, including emission limitations, standards, or work practices. This compliance certification shall include all of the following (provided that the identification of applicable information may cross-reference the permit or previous reports, as applicable):
- (a) The identification of each term or condition of the permit that is the basis of the certification;
- (b) The identification of the method(s) or other means used by the owner or operator for determining the compliance status with each term and condition during the certification period; such methods and other means shall include, at a minimum, the methods and means required by this permit. If necessary, the owner or operator also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Federal Act, which prohibits knowingly making a false certification or omitting material information;
- (c) The status of compliance with the terms and conditions of the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent. The certification shall be based on the method or means designated in B5(b) above. The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion* or exceedance** as defined below occurred; and
- (d) Such other facts as the Technical Secretary may require to determine the compliance status of the source.
- * "Excursion" shall mean a departure from an indicator range established for monitoring under this paragraph, consistent with any averaging period specified for averaging the results of the monitoring.

** "Exceedance" shall mean a condition that is detected by monitoring that provides data in terms of an emission limitation or standard and that indicates that emissions (or opacity) are greater than the applicable emission limitation or standard (or less than the applicable standard in the case of a percent reduction requirement) consistent with any averaging period specified for averaging the results of the monitoring.

40 CFR Part 70.6(c)(5)(iii) as amended in the Federal Register Vol. 79, No.144, July 28, 2014, pages 43661 through 43667

B6. Submission of compliance certification. The compliance certification shall be submitted to:

The Tennessee Department of Environment and Conservation Environmental Field Office specified in Section E of this permit	and	Air Enforcement Branch US EPA Region IV 61 Forsyth Street, SW Atlanta, Georgia 30303
------------------------------------------------------------------------------------------------------------------------------	-----	-----------------------------------------------------------------------------------------------

TAPCR 1200-03-09-.02(11)(e)3(v)(IV)

B7. Emergency provisions. An emergency constitutes an affirmative defense to an enforcement action brought against this source for noncompliance with a technology-based emission limitation due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

(a) The affirmative defense of the emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

1. An emergency occurred and that the permittee can identify the probable cause(s) of the emergency. "Probable" must be supported by a credible investigation into the incident that seeks to identify the causes and results in an explanation supported by generally accepted engineering or scientific principles.
2. The permitted source was at the time being properly operated. In determining whether or not a source was being properly operated, the Technical Secretary shall examine the source's written standard operating procedures which were in effect at the time of the noncompliance and any other code as detailed below that would be relevant to preventing the noncompliance. Adherence to the source's standard operating procedures will be the test of adequate preventative maintenance, careless operation, improper operation or operator error to the extent that such adherence would prevent noncompliance. The source's failure to follow recognized standards of practice to the extent that adherence to such a standard would have prevented noncompliance will disqualify the source from any claim of an emergency and an affirmative defense.
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.
4. The permittee submitted notice of the emergency to the Technical Secretary according to the notification criteria for malfunctions in TAPCR Rule 1200-03-20-.03. For the purposes of this condition, "emergency" shall be substituted for "malfunction(s)" in TAPCR Rule 1200-03-20-.03 to determine the relevant notification threshold. The notice shall include a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

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

(c) The provisions of this condition are in addition to any emergency, malfunction or upset requirement contained in TAPCR Divisions 1200-03 and 0400-30 or other applicable requirement.

TAPCR 1200-03-09-.02(11)(e)7

B8. Excess emissions reporting.

(a) The permittee shall promptly notify the Technical Secretary when any emission source, air pollution control equipment, or related facility breaks down in such a manner to cause the emission of air contaminants in excess of the applicable emission standards contained in TAPCR Division 1200-03 or any permit issued thereto, or of sufficient duration to cause damage to property or public health. The permittee must provide the Technical Secretary with a statement giving all pertinent facts, including the estimated duration of the breakdown, the probable cause of the deviation, and any corrective actions or preventative measures taken. Violations of the visible emission standard which occur for less than 20 minutes in one day (midnight to midnight) need not be reported. Prompt notification will be within 24 hours of the malfunction and shall be provided by telephone to the Division's Nashville office. The Technical Secretary shall be notified when the condition causing the failure or breakdown has been corrected. In attainment and unclassified areas if emissions other than from sources designated as significantly impacting on a nonattainment area in excess of the standards will not and do not occur over more than a 24-hour period (or will not recur over more than a 24-hour period) and no damage to property and or public health is anticipated, notification is not required.

(b) Any malfunction that creates an imminent hazard to health must be reported by telephone immediately to the Division's Nashville office at (615) 532-0554 and to the State Civil Defense.

(c) A log of all malfunctions, startups, and shutdowns resulting in emissions in excess of the standards in TAPCR Division 1200-03 or any permit issued thereto must be kept at the plant. All information shall be entered in the log no later than twenty-four (24) hours after the startup or shutdown is complete, or the malfunction has ceased or has been corrected. Any later discovered corrections can be added in the log as footnotes with the reason given for the change. This log must record at least the following:

1. Stack or emission point involved
2. Time malfunction, startup, or shutdown began and/or when first noticed
3. Type of malfunction and/or reason for shutdown
4. Time startup or shutdown was complete or time the air contaminant source returned to normal operation
5. The company employee making entry on the log must sign, date, and indicate the time of each log entry

The information under items 1. and 2. must be entered into the log by the end of the shift during which the malfunction or startup began. For any source utilizing continuous emission(s) monitoring, continuous emission(s) monitoring collection satisfies the above log keeping requirement.

TAPCR 1200-03-20-.03 and .04

B9. Malfunctions, startups and shutdowns - reasonable measures required. The permittee must take all reasonable measures to keep emissions to a minimum during startups, shutdowns, and malfunctions. These measures may include installation and use of alternate control systems, changes in operating methods or procedures, cessation of operation until the process equipment and/or air pollution control equipment is repaired, maintaining sufficient spare parts, use of overtime labor, use of outside consultants and contractors, and other appropriate means. Failures that are caused by poor maintenance, careless operation or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions. This provision does not apply to standards found in 40 CFR, Parts 60(Standards of performance for new stationary sources), 61(National emission standards for hazardous air pollutants) and 63(National emission standards for hazardous air pollutants for source categories).

TAPCR 1200-03-20-.02

B10. Reserved.

B11. Report required upon the issuance of a notice of violation for excess emissions. The permittee must submit, within twenty days after receipt of the notice of violation, the data required below. If this data has been made available to the Technical Secretary prior to the issuance of the notice of violation no further action is required of the violating source. However, if the source desires to submit additional information, then this must be submitted within the same 20-day time period. The minimum data requirements are:

- (a) The identity of the stack and/or other emission point where the excess emission(s) occurred;
- (b) The magnitude of the excess emissions expressed in pounds per hour and the units of the applicable emission limitation(s) and the operating data and calculations used in determining the magnitude of the excess emissions;
- (c) The time and duration of the emissions;
- (d) The nature and cause of such emissions;
- (e) For malfunctions, the steps taken to correct the situation and the action taken or planned to prevent the recurrence of such malfunctions;
- (f) The steps taken to limit the excess emissions during the occurrence reported, and
- (g) If applicable, documentation that the air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good operating practices for minimizing emissions.

Failure to submit the required report within the 20-day period specified shall preclude the admissibility of the data for determination of potential enforcement action.

TAPCR 1200-03-20-.06(2), (3) and (4)

SECTION C

PERMIT CHANGES

- C1. Operational flexibility changes.** The source may make operational flexibility changes that are not addressed or prohibited by the permit without a permit revision subject to the following requirements:
- (a) The change cannot be subject to a requirement of Title IV of the Federal Act or TAPCR Chapter 1200-03-30.
 - (b) The change cannot be a modification under any provision of Title I of the federal Act or TAPCR Division 1200-03.
 - (c) Each change shall meet all applicable requirements and shall not violate any existing permit term or condition.
 - (d) The source must provide contemporaneous written notice to the Technical Secretary and EPA of each such change, except for changes that are below the threshold of levels that are specified in TAPCR Rule 1200-03-09-.04.
 - (e) Each change shall be described in the notice including the date, any change in emissions, pollutants emitted, and any applicable requirements that would apply as a result of the change.
 - (f) The change shall not qualify for a permit shield under the provisions of TAPCR part 1200-03-09-.02(11)(e)6.
 - (g) The permittee shall keep a record describing the changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes. The records shall be retained until the changes are incorporated into subsequently issued permits.

TAPCR 1200-03-09-.02(11)(a)4(ii)

- C2. Section 502(b)(10) changes.**
- (a) The permittee can make certain changes without requiring a permit revision, if the changes are not modifications under Title I of the Federal Act or TAPCR Division 1200-03 and the changes do not exceed the emissions allowable under the permit. The permittee must, however, provide the Administrator and Technical Secretary with written notification within a minimum of 7 days in advance of the proposed changes. The Technical Secretary may waive the 7 day advance notice in instances where the source demonstrates in writing that an emergency necessitates the change. Emergency shall be demonstrated by the criteria of TAPCR part 1200-03-09-.02(11)(e)7 and in no way shall it include changes solely to take advantages of an unforeseen business opportunity. The Technical Secretary and EPA shall attach each such notice to their copy of the relevant permit.
 - (b) The written notification must be signed by a facility Title V responsible official and include the following:
 - 1. a brief description of the change within the permitted facility;
 - 2. the date on which the change will occur;
 - 3. a declaration and quantification of any change in emissions;
 - 4. a declaration of any permit term or condition that is no longer applicable as a result of the change; and
 - 5. a declaration that the requested change is not a Title I modification and will not exceed allowable emissions under the permit.
 - (c) The permit shield provisions of TAPCR part 1200-03-09-.02(11)(e)6 shall not apply to Section 502(b)(10) changes.

TAPCR 1200-03-09-.02(11)(a)4(i)

- C3. Administrative amendment.**
- (a) Administrative permit amendments to this permit shall be in accordance with TAPCR part 1200-03-09-.02(11)(f)4. The source may implement the changes addressed in the request for an administrative amendment immediately upon submittal of the request.
 - (b) The permit shield shall be extended as part of an administrative permit amendment revision consistent with the provisions of TAPCR part 1200-03-09-.02(11)(e)6 for such revisions made pursuant to item (c) of this condition which meet the relevant requirements of TAPCR subparagraph 1200-03-09-.02(11)(e), TAPCR subparagraph 1200-03-09-.02(11)(f) and TAPCR subparagraph 1200-03-09-.02(11)(g) for significant permit modifications.
 - (c) Proceedings to review and grant administrative permit amendments shall be limited to only those parts of the permit for which cause to amend exists, and not the entire permit.

TAPCR 1200-03-09-.02(11)(f)4

- C4. Minor permit modifications.**
- (a) The permittee may submit an application for a minor permit modification in accordance with TAPCR subpart 1200-03-09-.02(11)(f)5(ii).
 - (b) The permittee may make the change proposed in its minor permit modification immediately after an application is filed with the Technical Secretary.

- (c) Proceedings to review and modify permits shall be limited to only those parts of the permit for which cause to modify exists, and not the entire permit.
- (d) Minor permit modifications do not qualify for a permit shield.

TAPCR 1200-03-09-.02(11)(f)5(ii)

C5. Significant permit modifications.

- (a) The permittee may submit an application for a significant modification in accordance with TAPCR subpart 1200-03-09-.02(11)(f)5(iv).
- (b) Proceedings to review and modify permits shall be limited to only those parts of the permit for which cause to modify exists, and not the entire permit.

TAPCR 1200-03-09-.02(11)(f)5(iv)

C6. New construction or modifications.

Future construction at this facility that is subject to the provisions of TAPCR Rule 1200-03-09-.01 shall be governed by the following:

- (a) The permittee shall designate in their construction permit application the route that they desire to follow for the purposes of incorporating the newly constructed or modified sources into their existing operating permit. The Technical Secretary shall use that information to prepare the operating permit application submittal deadlines in their construction permit.
- (b) Sources desiring the permit shield shall choose the administrative amendment route of TAPCR part 1200-03-09-.02(11)(f)4 or the significant modification route of TAPCR subpart 1200-03-09-.02(11)(f)5(iv).
- (c) Sources desiring expediency instead of the permit shield shall choose the minor permit modification procedure route of TAPCR subpart 1200-03-09-.02(11)(f)5(ii) or group processing of minor modifications under the provisions of TAPCR subpart 1200-03-09-.02(11)(f)5(iii) as applicable to the magnitude of their construction.

TAPCR 1200-03-09-.02(11)(d)1(i)(V)

SECTION D

GENERAL APPLICABLE REQUIREMENTS

D1. Visible emissions.

- (a) With the exception of air emission sources exempt from the requirements of TAPCR Chapter 1200-03-05 and air emission sources for which a different opacity standard is specifically provided elsewhere in this permit, the permittee shall not cause, suffer, allow or permit discharge of a visible emission from any air contaminant source with an opacity in excess of twenty (20) percent for an aggregate of more than five (5) minutes in any one (1) hour or more than 20 minutes in any twenty-four (24) hour period; provided, however, that for fuel burning installations with fuel burning equipment of input capacity greater than 600 million btu per hour, the permittee shall not cause, suffer, allow, or permit discharge of a visible emission from any fuel burning installation with an opacity in excess of 20 percent (6-minute average) except for one six minute period per one hour of not more than 40 percent opacity. Sources constructed or modified after July 7, 1992, shall utilize 6-minute averaging.
- (b) Consistent with the requirements of TAPCR Chapter 1200-03-20, due allowance may be made for visible emissions in excess of that permitted under TAPCR Chapter 1200-03-05 which are necessary or unavoidable due to routine startup and shutdown conditions. The facility shall maintain a continuous, current log of all excess visible emissions showing the time at which such conditions began and ended and that such record shall be available to the Technical Secretary or an authorized representative upon request.

TAPCR 1200-03-05-.01(1), TAPCR 1200-03-05-.03(6) and TAPCR 1200-03-05-.02(1)

- D2. General provisions and applicability for non-process gaseous emissions.** Any person constructing or otherwise establishing a non-portable air contaminant source emitting gaseous air contaminants after April 3, 1972, or relocating an air contaminant source more than 1.0 km from the previous position after November 6, 1988, shall install and utilize the best equipment and technology currently available for controlling such gaseous emissions.

TAPCR 1200-03-06-.03(2)

- D3. Non-process emission standards.** The permittee shall not cause, suffer, allow, or permit particulate emissions from non-process sources in excess of the standards in TAPCR Chapter 1200-03-06.

- D4. General provisions and applicability for process gaseous emissions.** Any person constructing or otherwise establishing an air contaminant source emitting gaseous air contaminants after April 3, 1972, or relocating an air contaminant source more than 1.0 km from the previous position after November 6, 1988, shall install and utilize equipment and technology which is deemed reasonable and proper by the Technical Secretary.

TAPCR 1200-03-07-.07(2)

- D5. Particulate emissions from process emission sources.** The permittee shall not cause, suffer, allow, or permit particulate emissions from process sources in excess of the standards in TAPCR part 1200-03-07.

- D6. Sulfur dioxide emission standards.** The permittee shall not cause, suffer, allow, or permit sulfur dioxide emissions from process and non-process sources in excess of the standards in TAPCR Chapter 1200-03-14. Regardless of the specific emission standard, new process sources shall utilize the best available control technology as deemed appropriate by the Technical Secretary of the Tennessee Air Pollution Control Board.

D7. Fugitive Dust.

- (a) The permittee shall not cause, suffer, allow, or permit any materials to be handled, transported, or stored; or a building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, but not be limited to, the following:
1. Use, where possible, of water or chemicals for control of dust in demolition of existing buildings or structures, construction operations, grading of roads, or the clearing of land;
 2. Application of asphalt, water, or suitable chemicals on dirt roads, material stockpiles, and other surfaces which can create airborne dusts;
 3. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials. Adequate containment methods shall be employed during sandblasting or other similar operations.

- (b) The permittee shall not cause, suffer, allow, or permit fugitive dust to be emitted in such manner to exceed five (5) minutes per hour or 20 minutes per day as to produce a visible emission beyond the property line of the property on which the emission originates, excluding malfunction of equipment as provided in TAPCR Chapter 1200-03-20.

TAPCR 1200-03-08

- D8. Open burning.** The permittee shall comply with the TAPCR Chapter 1200-03-04 for all open burning activities at the facility.

TAPCR 1200-03-04

- D9. Asbestos.** Where applicable, the permittee shall comply with the requirements of 40 CFR Part 61 when conducting any renovation or demolition activities at the facility.

TAPCR 0400-30-38-.01(2) and 40 CFR, Part 61

- D10. Annual certification of compliance.** The generally applicable requirements set forth in Section D of this permit are intended to apply to activities and sources that are insignificant emission units or activities. By annual certification of compliance with the conditions in this Section the permittee shall be considered to meet the monitoring and related record keeping and reporting requirements of TAPCR subpart 1200-03-09-.02(11)(e)1(iii) and part 1200-03-10-.04(2)(b)1 and the compliance requirements of TAPCR subpart 1200-03-09-.02(11)(e)3(i). The permittee shall submit compliance certification for these conditions annually.

- D11. Emission Standards for Hazardous Air Pollutants.** The permittee shall comply with all applicable requirements of TAPCR Chapter 0400-30-38 for all emission sources subject to a requirement contained therein.

- D12. Standards of Performance for New Stationary Sources.** The permittee shall comply with all applicable requirements of TAPCR chapters 0400-30-39 and 1200-03-16 for all emission sources subject to a requirement contained therein.

- D13. Gasoline Dispensing Facilities.** The permittee shall comply with all applicable requirements of TAPCR Rule 1200-03-18-.24 for all emission sources subject to a requirement contained therein.

- D14. Internal Combustion Engines.**

- (a) All stationary reciprocating internal combustion engines, including engines deemed insignificant activities and insignificant emission units, shall comply with the applicable provisions of TAPCR Rule 0400-30-38-.01.
- (b) All stationary compression ignition internal combustion engines, including engines deemed insignificant activities and insignificant emission units, shall comply with the applicable provisions of TAPCR Chapter 0400-30-39.
- (c) All stationary spark ignition internal combustion engines, including engines deemed insignificant activities and insignificant emission units, shall comply with the applicable provisions of TAPCR Chapter 0400-30-39.

TAPCR 0400-30-38 and 39

- D15.** The permittee shall maintain and repair each emission source, associated air pollution control device(s), and compliance assurance monitoring equipment as required to maintain and assure compliance with the specified emission limits.

TAPCR 1200-03-09-.03(8)

SECTION E

SOURCE SPECIFIC EMISSION STANDARDS, OPERATING LIMITATIONS, and MONITORING, RECORDKEEPING and REPORTING REQUIREMENTS

Facility Description: Northwest Tennessee Disposal Corporation (NWTDC) is a municipal solid waste landfill (MSWL) located in Union City, Tennessee. The site area is approximately 120 acres.

NWTDC reported in September 16, 2021, that the facility's annual emissions of non-methane organic compounds (NMOC) exceeded the regulatory threshold of 34 megagrams per year. As a result, NWTDC is required to install and operate a gas collection and control system (GCCS) in accordance with 40 CFR 62 Subpart OOO on or before March 16, 2024, 30 months after the date of submittal of the NMOC emission rate report, as specified in 40 CFR 62 Subpart OOO.

NWTDC has elected to comply with the provisions of 40 CFR 63 Subpart AAAA (National Emission Standards for Hazardous Air Pollutants for Municipal Solid Waste Landfills) (§63.1958, §63.1960, and §63.1961) as allowed in §62.16716, §62.16720, and §62.16722. Applicable requirement of 40 CFR 63 Subpart AAAA are applicable on March 16, 2024

Additionally, the facility is subject to 40 CFR 61 Subpart M (National Emission Standard for Asbestos) and 40 CFR 63 subpart CCCCCC (National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities).

The GCCS consists of a series of landfill gas extraction wells and collection piping that collects landfill gas within the waste mass and sends the landfill gas to a primary control device for combustion. The primary control device at NWTDC is an open (utility) flare (4700 CFM). This process prevents the release of NMOC and other hazardous air pollutants into the atmosphere.

Conditions E1 through E3 apply to the entire facility

E1. Fee payment

FEE EMISSIONS SUMMARY TABLE FOR MAJOR SOURCE 66-0113

REGULATED POLLUTANTS	ALLOWABLE EMISSIONS (tons per AAP)	ACTUAL EMISSIONS (tons per AAP)	COMMENTS
PARTICULATE MATTER (PM)	9.70	AEAR	Includes all fee emissions.
PM ₁₀	N/A	N/A	
SO ₂	104.50	AEAR	Includes all fee emissions.
VOC	10.10	AEAR	Does not include all fee emissions.
NO _x	42.50	AEAR	Includes all fee emissions.
CATEGORY OF MISCELLANEOUS HAZARDOUS AIR POLLUTANTS (HAPs WITHOUT A STANDARD)*			
VOC FAMILY GROUP	10.10	AEAR	Fee emissions are not included in VOC above.
NON-VOC GASEOUS GROUP	N/A	N/A	
PM FAMILY GROUP	N/A	N/A	
CATEGORY OF SPECIFIC HAZARDOUS AIR POLLUTANTS (HAPs WITH A STANDARD)**			
VOC FAMILY GROUP	N/A	N/A	
NON-VOC GASEOUS GROUP	N/A	N/A	
PM FAMILY GROUP	N/A	N/A	
CATEGORY OF NSPS POLLUTANTS NOT LISTED ABOVE***			
EACH NSPS POLLUTANT NOT LISTED ABOVE	N/A	N/A	

NOTES

AAP The **Annual Accounting Period (AAP)** is a 12 consecutive month period that **either (a) begins each July 1st and ends June 30th of the following year when fees are paid on a fiscal year basis, or (b) begins January 1st and ends December 31st of the same year when paying on a calendar year basis.** The **Annual Accounting Period** at the time of permit renewal issuance **begans January 1, 2023 and ends December 31, 2023. The next Annual Accounting Period begins January 1, 2024 and ends December 31, 2024** unless a request to change the annual accounting period is submitted by the responsible official as required by subparagraph 1200-03-26-.02(9)(b) of the TAPCR and approved by the Technical Secretary. If the permittee wishes to revise their annual accounting period or their annual emission fee basis as allowed by subparagraph 1200-03-26-.02(9)(b) of the TAPCR, the responsible official must submit the request to the Division in writing on or before December 31 of the annual accounting period for which the fee is due. If a change in fee basis from allowable emissions to actual emissions for any pollutant is requested, the request from the responsible official must include the methods that will be used to determine actual emissions. Changes in fee bases must be made using the Title V Fee Selection form, form number APC 36 (CN-1583), included as an attachment to this permit and available on the Division of Air Pollution Control's website.

N/A N/A indicates that no emissions are specified for fee computation.

AEAR If the permittee is paying annual emission fees on an actual emissions basis, **AEAR** indicates that an **Actual Emissions Analysis is Required** to determine the actual emissions of:

- (1) **each regulated pollutant** (Particulate matter, SO₂, VOC, NO_x and so forth. See TAPCR 1200-03-26-.02(2)(i) for the definition of a regulated pollutant.),
- (2) **each pollutant group** (VOC Family, Non-VOC Gaseous, and Particulate Family),
- (3) **the Miscellaneous HAP Category,**
- (4) **the Specific HAP Category, and**
- (5) **the NSPS Category**

under consideration during the **Annual Accounting Period.**

* **Category Of Miscellaneous HAP (HAP Without A Standard):** This category is made-up of hazardous air pollutants that do not have a federal or state standard. Each HAP is classified into one of three groups, the **VOC Family** group, **the Non-VOC Gaseous** group, or the **Particulate (PM) Family** group. **For fee computation,** the **Miscellaneous HAP Category** is subject to the 4,000 ton cap provisions of subparagraph 1200-03-26-.02(2)(i) of the TAPCR.

** **Category Of Specific HAP (HAP With A Standard):** This category is made-up of hazardous air pollutants (HAP) that are subject to Federally promulgated Hazardous Air Pollutant Standards that can be imposed under Chapter 1200-03-11 or Chapter 1200-03-31. Each individual hazardous air pollutant is classified into one of three groups, the **VOC Family** group, **the Non-VOC Gaseous** group, or the **Particulate (PM) Family** group. **For fee computation,** each individual hazardous air pollutant of the **Specific HAP Category** is subject to the 4,000 ton cap provisions of subparagraph 1200-03-26-.02(2)(i) of the TAPCR.

*** **Category Of NSPS Pollutants Not Listed Above:** This category is made-up of each **New Source Performance Standard (NSPS)** pollutant whose emissions are not included in the **PM, SO₂, VOC or NO_x** emissions from each source in this permit. **For fee computation,** each **NSPS pollutant not listed above** is subject to the 4,000 ton cap provisions of subparagraph 1200-03-26-.02(2)(i) of the TAPCR.

END NOTES

- The permittee shall:**
- (1) Pay Title V **annual emission fees**, on the emissions and year bases requested by the responsible official and approved by the Technical Secretary, for each annual accounting period (AAP) by the payment deadline(s) established in TAPCR 1200-03-26-.02(9)(g). Fees may be paid on an **actual, allowable, or mixed** emissions basis; and on either a **state fiscal year** or a **calendar year**, provided the requirements of TAPCR 1200-03-26-.02(9)(b) are met. If any part of any fee imposed under TAPCR 1200-03-26-.02 is not paid within 15 days of the due date, penalties shall at once accrue as specified in TAPCR 1200-03-26-.02(8).
 - (2) Sources paying annual emissions fees on an allowable emissions basis: pay annual allowable based emission fees for each annual accounting period no later than April 1 of each year pursuant to TAPCR 1200-03-26-.02(9)(d).

- (3) Sources paying annual emissions fees on an actual emissions basis: prepare an **actual emissions analysis** for each AAP and pay **actual based emission fees** pursuant to TAPCR 1200-03-26-.02(9)(d). The **actual emissions analysis** shall include:
- (a) the completed **Fee Emissions Summary Table**,
 - (b) each **actual emissions analysis** required, and
 - (c) the actual emission records for each pollutant and each source as required for actual emission fee determination, or a summary of the actual emission records required for fee determination, as specified by the Technical Secretary or the Technical Secretary's representative. The summary must include sufficient information for the Technical Secretary to determine the accuracy of the calculations. These calculations must be based on the annual fee basis approved by the Technical Secretary (a state fiscal year [July 1 through June 30] or a calendar year [January 1 through December 31]). These records shall be used to complete the **actual emissions analyses** required by the above **Fee Emissions Summary Table**.
- (4) Sources paying annual emissions fees on a mixed emissions basis: for all pollutants and all sources for which the permittee has chosen an actual emissions basis, prepare an **actual emissions analysis** for each AAP and pay **actual based emission fees** pursuant to TAPCR 1200-03-26-.02(9)(d). The **actual emissions analysis** shall include:
- (a) the completed **Fee Emissions Summary Table**,
 - (b) each **actual emissions analysis** required, and
 - (c) the actual emission records for each pollutant and each source as required for actual emission fee determination, or a summary of the actual emission records required for fee determination, as specified by the Technical Secretary or the Technical Secretary's representative. The summary must include sufficient information for the Technical Secretary to determine the accuracy of the calculations. These calculations must be based on the fee bases approved by the Technical Secretary (payment on an actual or mixed emissions basis) and payment on a state fiscal year (July 1 through June 30) or a calendar year (January 1 through December 31). These records shall be used to complete the **actual emissions analysis**.
- For all pollutants and all sources for which the permittee has chosen an allowable emissions basis, pay allowable based emission fees pursuant to TAPCR 1200-03-26-.02(9)(d).
- (5) When paying on an actual or mixed emissions basis, submit the **actual emissions analyses** at the time the fees are paid in full.

The annual emission fee due dates are specified in TAPCR 1200-03-26-.02(9)(g) and are dependent on the Responsible Official's choice of fee bases as described above. If any part of any fee imposed under TAPCR 1200-03-26-.02 is not paid within 15 days of the due date, penalties shall at once accrue as specified in TAPCR 1200-03-26-.02(8). Emissions for regulated pollutants shall not be double counted as specified in Condition A8(d) of this permit.

Payment of the fee due and the actual emissions analysis (if required) shall be submitted to The Technical Secretary at the following address:

Payment of Fee to:
 The Tennessee Department of Environment and Conservation
 Division of Fiscal Services
 Consolidated Fee Section – APC 66-0113
 William R. Snodgrass Tennessee Tower
 312 Rosa L. Parks Avenue, 10th Floor
 Nashville, Tennessee 37243

Actual Emissions Analyses to:
 The Tennessee Department of Environment and Conservation
 Division of Air Pollution Control
 Emission Inventory Program
 William R. Snodgrass Tennessee Tower
 312 Rosa L. Parks Avenue, 15th Floor
 Nashville, Tennessee 37243

or
 An electronic copy (PDF) of actual emissions analysis can also be submitted to: apc.inventory@tn.gov

E2. Reporting requirements.**(a) Reserved**

(b) Annual compliance certification. The permittee shall submit annually compliance certifications with each term or condition contained in Sections A, B, D and E of this permit, including emission limitations, standards, or work practices. This compliance certification shall include all of the following (provided that the identification of applicable information may cross-reference the permit or previous reports, as applicable):

- (1) The identification of each term or condition of the permit that is the basis of the certification;
- (2) The identification of the method(s) or other means used by the owner or operator for determining the compliance status with each term and condition during the certification period; Such methods and other means shall include, at a minimum, the methods and means required by this permit. If necessary, the owner or operator also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Federal Act, which prohibits knowingly making a false certification or omitting material information;
- (3) The status of compliance with each term or condition of the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent. The certification shall be based on the method or means designated in E2(b)2 above. The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion* or exceedance** as defined below occurred; and
- (4) Such other facts as the Technical Secretary may require to determine the compliance status of the source.

* “Excursion” shall mean a departure from an indicator range established for monitoring under this paragraph, consistent with any averaging period specified for averaging the results of the monitoring.

** “Exceedance” shall mean a condition that is detected by monitoring that provides data in terms of an emission limitation or standard and that indicates that emissions (or opacity) are greater than the applicable emission limitation or standard (or less than the applicable standard in the case of a percent reduction requirement) consistent with any averaging period specified for averaging the results of the monitoring.

Annual compliance certifications shall cover the 12-month period from **January 1** to **December 31** and shall be submitted within 60 days after the end of each 12-month period. The first annual compliance certification following issuance of this permit shall cover the following permits and reporting periods:

Permit Number	Reporting Period Begins	Reporting Period Ends
Old permit #572770	January 1, 2023	TBD, 2023
New permit #580562	TBD, 2023	December 31, 2023

These certifications shall be submitted to:

TN APCD and **EPA**

**Division of Air Pollution Control
Jackson Environmental Field Office
1625 Hollywood Drive
Jackson, Tennessee 38305
or
Email Address
APC.JackEFO@tn.gov**

**and Air Enforcement Branch
US EPA Region IV
61 Forsyth Street, SW
Atlanta, Georgia 30303
or
Through the EPA CDX
(<https://cdx.epa.gov/>)**

40 CFR Part 70.6(c)(5)(iii) as amended in the Federal Register Vol. 79, No.144, July 28, 2014, pages 43661 through 43667
TAPCR 1200-03-09-.02(11)(e)3.(v)

- (c) **Retention of Records** All records required by any condition in Section E of this permit must be retained for a period of not less than five years. Additionally, these records shall be kept available for inspection by the Technical Secretary or a Division representative.

TAPCR 1200-03-09-.02(11)(e)1.(iii)(II)II

- (d) **40 CFR 62 Subpart OOO and 40 CFR 63 Subpart AAAA Reports** The permittee shall submit *40 CFR 62 Subpart OOO and 40 CFR 63 Subpart AAAA Reports* of the recorded information outlined below, as applicable. These reports must be certified by a responsible official consistent with **Condition B4** of this permit and shall be submitted to the Technical Secretary, Division of Air Pollution Control, William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 15TH Floor, Nashville, Tennessee 37243 or by email to Air.Pollution.Control@tn.gov.

- (1) The existing or any new or reconstructed flares performance test, if required under **Condition E3-15**.
- (2) The increments of progress, if required under **Condition E4-1**.
- (3) The design capacity reports if required under **Condition E4-9**.
- (4) The NMOC emission rate report if required under **Condition E4-10(a)**.
- (5) Liquids addition, as required under **Condition E4-14**
- (6) Reports required under **Condition E5-30**.

Subsequent reports shall be submitted within 60 days after the end of each reporting period. The initial report shall cover the period from **March 16, 2024**, to **June 30, 2024**, and shall be submitted within 60 days after the period ending **June 30, 2024**. The second report shall cover the 6-month period from **July 1, 2024**, to **December 31, 2024**, and shall be submitted within 60 days after the 6-month period ending **December 31, 2024**. Subsequent reports shall be submitted within 60 days after the end of each 6-month period following the second report. These reports must be certified by a responsible official consistent with **Condition B4** of this permit and shall be submitted to the Technical Secretary, Division of Air Pollution Control, William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 15TH Floor, Nashville, Tennessee 37243 or by email to Air.Pollution.Control@tn.gov.

TAPCR 1200-03-09-.02(11)(e)1.(iii)(II)II

E3. **General Permit Requirements.**

E3-1. **Identification of Responsible Official, Technical Contact, and Billing Contact**

- a) The application that was utilized in the preparation of permit is dated July 7, 2022, and signed by Responsible Official Bryan Sehie, Environmental Manager, of the permitted facility. If this person terminates employment or is assigned different duties and is no longer a Responsible Official for this facility as defined in part 1200-03-09-.02(11)(b)21 of the Tennessee Air Pollution Control Regulations, the owner or operator of this air contaminant source shall notify the Technical Secretary of the change. Said notification must be in writing and must be submitted within thirty (30) days of the change. The notification shall include the name and title of the new Responsible Official and certification of truth and accuracy. All representations, agreement to terms and conditions, and covenants made by the former Responsible Official that were used in the establishment of the permit terms and conditions will continue to be binding on the facility until such time that a revision to this permit is obtained that would change said representations, agreements, and/or covenants.
- b) The application that was utilized in the preparation of this permit is dated July 7, 2022, and identifies Bryan Sehie, Environmental Manager, as the Principal Technical Contact for the permitted facility. If Bryan Sehie terminates employment or is assigned different duties and is no longer the Principal Technical Contact for this facility, the permittee of this air contaminant source shall notify the Technical Secretary of the change. Said notification must be in writing and must be submitted within thirty (30) days of the change. The notification shall include the name and title of the new Principal Technical Contact and certification of truth and accuracy.
- c) The application that was utilized in the preparation of this permit is dated July 7, 2022, and identifies Bryan Sehie, Environmental Manager, as the Billing Contact for the permitted facility. If Bryan Sehie terminates employment or is assigned different duties and is no longer the Billing Contact for this facility, the permittee of this air contaminant source shall notify the Technical Secretary of the change. Said notification must be in writing and must be submitted within thirty (30) days of the change. The notification shall include the name and title of the new Billing Contact and certification of truth and accuracy.

TAPCR 1200-03-09-.02(6)

- E3-2.** The permittee listed various insignificant and exempt activities in their Title V Application per TAPCR 1200-03-09-.04(5). Additional insignificant activities may be added and operated at any time with the provision that a written notification shall be submitted to the Technical Secretary including an updated APC V.2 application form along with a truth, accuracy, and completeness statement signed by a responsible official. Emergency engines and gas dispensing facilities may be deemed insignificant if they meet the definition in TAPCR 1200-03-09-.04(2)(a). The engines and/or gas dispensing facility may be subject to a federal standard as identified in **Conditions D11, D12, D13, and D14**.

TAPCR 1200-03-09-03(8)

- E3-3.** This facility is currently not subject to regulations under 40 CFR part 64 (Compliance Assurance Monitoring).

TAPCR 1200-03-09-.03(8) and 40 CFR Part 64

- E3-4.** The permittee shall comply with all applicable state and federal air pollution regulations. This includes, but is not limited to, all applicable provisions of the Tennessee Air Pollution Control Comprehensive Rules and Regulations, federal regulations published under 40 CFR 61, 40 CFR 62, and 40 CFR 63 for sources of hazardous air pollutants, and federal regulations published under 40 CFR 60, New Source Performance Standards.

TAPCR 1200-03-09-.03(8)

E3-5. Recordkeeping: Data Entry Requirements

- (a) For monthly recordkeeping, all data, including results of all calculations, must be entered into the log no later than thirty days from the end of the month for which the data is required.
- (b) For weekly recordkeeping, all data, including results of all calculations, must be entered into the log no later than seven days from the end of the week for which the data is required.
- (c) For daily recordkeeping, all data, including results of all calculations, must be entered into the log no later than seven days from the end of the day for which the data is required.

TAPCR 1200-03-10-.02(1)(a)

- E3-6.** The issuance of this permit does not exempt the permittee from any requirements of the Environmental Protection Agency pertaining to emissions from the operation of this source.

TAPCR 1200-03-09-.03(8)

- E3-7. Asbestos:** This landfill receives, handles, and disposes of asbestos containing material. The handling and disposal of regulated-asbestos-containing material must be managed in accordance with those applicable requirements in the current **National Emission Standard for Asbestos of 40 CFR Part 61 Subpart M** and the current Rule 1200-03-11-.02 of the Tennessee Air Pollution Control Regulations (TAPCR) listed in Attachments 2 and 3 of this permit. It should be noted this is not a new requirement, and the existing regulations have been in place. However, regulatory citations are now included in this permit to explicitly specify the requirements. Upon receipt of asbestos at the landfill, the permittee is subject to and shall comply with the **Standard for Active Disposal Sites** per Rule 1200-03-11-.02(5) of the TAPCR and the federal counterpart 40 CFR 61.154. Upon closure of an active disposal site, the permittee shall comply with the provisions of Rule 1200-03-11-.02(2)(I) of the TAPCR entitled **Standard for Inactive Waste Disposal Sites for Asbestos Mills and Manufacturing and Fabricating Operations** and the federal counterpart 40 CFR 61.151. Additionally, the permittee shall comply with the general provisions of 40 CFR Part 61 as indicated in Attachment 5.

TAPCR 1200-03-11-.02, TAPCR 1200-03-09-.03(8) and 40 CFR Part 61 Subpart M

- E3-8.** Unless otherwise specified, visible emissions from any stack at this facility shall not exhibit greater than twenty percent opacity, except for one six-minute period in any one-hour period, and for no more than four six-minute periods in any twenty-four hour

period. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average).

Compliance Method: The permittee is currently not required to conduct periodic monitoring and reporting of visible emission evaluations of existing landfill operations as provided in Attachment 1.

TAPCR 1200-03-05-.03(6), TAPCR 1200-03-05-.01(1), and TAPCR 1200-03-10-.02(1)(a)

- E3-9.** The permittee shall maintain and repair the emission source, associated air pollution control device(s), and compliance assurance monitoring equipment as required to maintain and assure compliance with the specified emission limits.

TAPCR 1200-03-09-.03(8)

Compliance Method: Records of all repair and maintenance activities required above shall be recorded in a suitable permanent form and kept available for inspection by the Division. These records must be retained for a period of not less than five years. The date each maintenance and repair activity began shall be entered in the log no later than thirty (30) days following the start of the repair or maintenance activity, and the completion date shall be entered in the log no later than thirty (30) days from activity completion.

- E3-10.** The source(s) in this permit shall operate in accordance with the terms of this permit and the information submitted in the approved application.

TAPCR 1200-03-09-.02(6), the application dated July 7, 2022.

- E3-11.** The Permittee is not required to file an accidental release plan pursuant to Section 112(r) of the Clean Air Act and 1200-03-32 of

TAPCR 1200-03-32

Compliance Method: Included with the requirement.

- E3-12.** The permittee shall comply with all applicable requirements of the general provisions of 40 CFR Part 61, 40 CFR Part 62, and 40 CFR Part 63 as indicated in Attachments 4, 5, and 8, as required in conditions D12 through D14. These requirements include, but are not limited to, the requirements specified in 40 CFR Part 61 Subpart M and 40 CFR Part 62 Subpart OOO.

TAPCR 1200-03-09-.03(8)

Compliance method: Annual certification of compliance as specified in **Condition E2(b)**.

- E3-13.** The issuance of this permit supersedes any previously issued permits for the source(s) contained in this permit.

TAPCR 1200-03-09-.03(8)

Compliance Method: Included with the requirement.

- E3-14.** The maximum emission rate from the entire facility for any single hazardous air pollutant (HAP), listed pursuant to Section 112(b) of the Federal Act, shall not exceed 9.9 tons per year. Total emissions of all HAPs from the entire facility shall not exceed 24.9 tons per year. In the event that the emission rates from the entire facility exceed these limits, the permittee shall provide written notification of the exceedance(s) to the Technical Secretary within fifteen (15) days from the date of discovery.

Compliance Method: Compliance with this emission limit is based upon the emission calculations provided with the Title V application dated July 7, 2022.

TAPCR 1200-03-07-.07(2)

- E3-15.** All existing flares that have not been performance tested, as well as any new or reconstructed flares installed at this source, must be subjected to an initial open flare performance test in accordance with 40 CFR §60.8. The performance test must be conducted no later than September 12, 2024 (180 days after March 16, 2024). March 16, 2024, is the deadline date for the landfill to meet the gas collection and control requirements of 40 CFR 62 Subpart OOO and 40 CFR 63 Subpart AAAA. The performance test

shall include a demonstration of compliance with **Condition E5-1**, an initial visible emissions evaluation, and the test results shall be included in the report required by **Condition E2(d)**. At least thirty (30) days prior to conducting the performance test, the Division's Compliance Validation Program shall be given notice (see address below) of the test in order to afford a Division representative the opportunity to have an observer present.

Division of Air Pollution Control
Compliance Validation Program
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 15th Floor
Nashville, Tennessee 37243

OR

Email Address Electronic copy (PDF) to:
Air.Pollution.Control@tn.gov

Compliance Method: Included with the requirement.

TAPCR 1200-03-10-.01(1)

E4. SOURCE SPECIFIC PERMIT REQUIREMENTS FROM THE DATE OF PERMIT ISSUANCE TO MARCH 15, 2024:

66-0113-01

Source Description

-

Landfill: This municipal solid waste landfill is subject to requirements for existing sources for Municipal Solid Waste Landfills in Title 40 Code of Federal Regulations (CFR) Part 62 Subpart 000. The landfill has a design capacity of approximately 17.6 million cubic yards. The estimated non-methane organic compound (NMOC) emissions from the site are greater than the regulatory threshold of 34 megagrams per year. Consequently, in accordance with 40 CFR §62.16714(b), the Landfill is required to install and operate a landfill GCCS no later than March 16, 2024. The landfill has elected to comply with the provisions of 40 CFR 63 Subpart AAAA (National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills) (§63.1958, §63.1960, and §63.1961) as allowed in §62.16716, §62.16720, and §62.16722 by March 16, 2024. The landfill's GCCS will continue to operate voluntarily until March 16, 2024. Additionally, the landfill is subject to 40 CFR 61 Subpart M (National Emission Standard for Asbestos).

Conditions E4-1 through E4-14 apply to source 66-0113-01 (subject to 40 CFR 62 Subpart 000)

E4-1. The owner or operator of a designated facility that has a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters and a NMOC emission rate greater than or equal to 34 megagrams per year must achieve the increments of progress specified in **(a) through (e)** of this condition to install air pollution control devices to meet the emission standards specified in § 62.16714(b) and (c). Refer to § 62.16730 for a definition of each increment of progress.

- (a) Submit a final control plan (collection and control system design plan) according to the requirements of § 62.16724(d).
- (b) Award contract(s) to initiate on-site construction or initiate on-site installation of emission collection and/or control equipment.
- (c) Initiate on-site construction or initiate on-site installation of emission collection and/or control equipment as described in the approved final control plan.
- (d) Complete on-site construction and installation of emission collection and/or control equipment.
- (e) Complete construction in accordance with the design specified in the approved final control plan and connect the landfill gas collection system and air pollution control equipment such that they are fully operating. The initial performance test must be conducted within 180 days after the date the facility is required to achieve final compliance.

Compliance Method: Included with the requirement.

TAPCR 1200-03-09-.03(8) and § 62.16712(a)

- E4-2.** For each designated facility that has a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters and a NMOC emission rate greater than or equal to 34 megagrams per year (50 megagrams per year for closed landfill subcategory), planning, awarding of contracts, and installation of municipal solid waste landfill air emission collection and control equipment capable of meeting the standards in § 62.16714(b) and (c) must be accomplished within 30 months after the date the initial emission rate report (or the annual emission rate report) first shows that the NMOC emission rate equals or exceeds 34 megagrams per year (50 megagrams per year for closed landfill subcategory), except as provided in § 62.16712(d).

Compliance Method: The reports as provided in **Condition E2(d)**.

TAPCR 1200-03-09-.03(8) and § 62.16712(b)

- E4-3.** The owner or operator of a designated facility that has a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters and a NMOC emission rate greater than or equal to 34 megagrams per year (50 megagrams per year for closed landfill subcategory) must achieve the increments of progress specified in **Condition E4-1(a) through (e)** according to the schedule specified in **Condition E4-3(a), (b), or Condition E4-4**.

- (a) The owner or operator of a designated facility must achieve the increments of progress according to the schedule in table 1 of 40 CFR 62 Subpart OOO as provided in Attachment 7.
- (b) The owner or operator of a designated facility that is using the Tier 4 procedures specified in § 62.16718(a)(6) must achieve the increments of progress according to the schedule in table 1 of 40 CFR 62 Subpart OOO.

Compliance Method: Compliance with table 1 of 40 CFR 62 Subpart OOO as provided in Attachment 7.

TAPCR 1200-03-09-.03(8) and § 62.16712(c)

- E4-4.** For designated facilities that are subject to the schedule requirements of **Condition E4-3**, the owner or operator may submit to the Technical Secretary a request for approval of alternative dates for achieving increments 2 and 3 in table 1 of 40 CFR 62 Subpart OOO as provided in Attachment 7.

Compliance Method: Included with the requirement.

TAPCR 1200-03-09-.03(8) and § 62.16712(d)

- E4-5.** The owner or operator of an MSW landfill having a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters must either install a collection and control system as provided in § 62.16714(b) and (c) or calculate an initial NMOC emission rate for the landfill using the procedures specified in § 62.16718(a). The NMOC emission rate must be recalculated annually, except as provided in § 62.16724(c)(3).

- (a) If the calculated NMOC emission rate is less than 34 megagrams per year, the owner or operator must:

- (1) Submit an annual NMOC emission rate report according to § 62.16724(c), except as provided in § 62.16724(c)(3); and
- (2) Recalculate the NMOC emission rate annually using the procedures specified in § 62.16724(a) until such time as the calculated NMOC emission rate is equal to or greater than 34 megagrams per year, or the landfill is closed.

(A) If the calculated NMOC emission rate, upon initial calculation or annual recalculation required in paragraph (e)(1)(ii) of this section, is equal to or greater than 34 megagrams per year, the owner or operator must either: Comply with § 62.16714(b) and (c); calculate NMOC emissions using the next higher tier in § 62.16718; or conduct a surface emission monitoring demonstration using the procedures specified in § 62.16718(a)(6).

(B) If the landfill is permanently closed, a closure report must be submitted to the Technical Secretary as provided in § 62.16724(f), except for exemption allowed under § 62.16711(g)(4) for legacy GCCS.

- (b) If the calculated NMOC emission rate is equal to or greater than 34 megagrams per year using Tier 1, 2, or 3 procedures, the owner or operator must either: Submit a collection and control system design plan prepared by a professional engineer to the Technical Secretary within 1 year as specified in § 62.16724(d), except for exemptions allowed under §

62.16711(g)(3); calculate NMOC emissions using a higher tier in § 62.16718; or conduct a surface emission monitoring demonstration using the procedures specified in § 62.16718(a)(6).

- (c) For the closed landfill subcategory, if the calculated NMOC emission rate submitted under previously applicable regulations 40 CFR part 60, subpart WWW; 40 CFR part 62, subpart GGG; or a state plan implementing 40 CFR part 60, subpart Cc is equal to or greater than 50 megagrams per year using Tier 1, 2, or 3 procedures, the owner or operator must either: submit a collection and control system design plan as specified in § 62.16724(d), except for exemptions allowed under § 62.16711(g)(3); or calculate NMOC emissions using a higher tier in § 62.16718.

Compliance Method: Compliance with this condition shall be demonstrated by the reporting requirements included in this condition.

TAPCR 1200-03-09-.03(8) and § 62.16714(e)

- E4-6.** The permittee is subject to the requirements under part 70 of 40 CFR. The permittee shall submit a closure report to the Technical Secretary within 30 days of waste acceptance cessation. The Technical Secretary may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of 40 CFR §258.60. If a closure report has been submitted to the Technical Secretary, no additional wastes may be placed into the landfill without filing a notification of modification to the Technical Secretary as described under 40 CFR 60.7(a)(4). When the landfill is closed, the permittee is no longer subject to the requirements under part 70 of 40 CFR for the landfill if the landfill is not otherwise subject to the requirements under part 70 of 40 CFR and if either of the following conditions are met:

- (a) The landfill was never subject to the requirement for a control system under 40 CFR 62.16714 or
 (b) The permittee meets the conditions for control system removal specified in 40 CFR 62.16714(f).

Compliance Method: Included with the requirement.

TAPCR 1200-03-09-.03(8) and 40 CFR § 62.16714

- E4-7.** The permittee shall comply with the following requirements regarding test methods and procedures:

- (a) The landfill owner or operator must calculate the NMOC emission rate using either Equation 1 provided in **Condition E4-7(a)(1)** or Equation 2 provided in **Condition E4-7(a)(2)**. Both Equation 1 and Equation 2 may be used if the actual year-to-year solid waste acceptance rate is known, as specified in **Condition E4-7(a)(1)**, for part of the life of the landfill and the actual year-to-year solid waste acceptance rate is unknown, as specified in **Condition E4-7(a)(2)**, for part of the life of the landfill. The values to be used in both Equation 1 and Equation 2 are 0.05 per year for k, 170 cubic meters per megagram for L_O , and 4,000 parts per million by volume as hexane for the C_{NMOC} . For landfills located in geographical areas with a 30-year annual average precipitation of less than 25 inches, as measured at the nearest representative official meteorological site, the k value to be used is 0.02 per year.

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

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

M_{NMOC}	=	Total NMOC emission rate from the landfill, megagrams per year.
k	=	Methane generation rate constant, year ⁻¹ .
L_O	=	Methane generation potential, cubic meters per megagram solid waste.
M_i	=	Mass of solid waste in the i th section, megagrams.
t_i	=	Age of the i th section, years.
C_{NMOC}	=	Concentration of NMOC, parts per million by volume as hexane.
3.6×10^{-9}	=	Conversion factor.

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

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

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

M_{NMOC}	=	Total NMOC emission rate from the landfill, megagrams per year.
K	=	Methane generation rate constant, year ⁻¹ .
L_O	=	Methane generation potential, cubic meters per megagram solid waste.
R	=	Average annual acceptance rate, megagrams per year.
t	=	Age of landfill, years.
C_{NMOC}	=	Concentration of NMOC, parts per million by volume as hexane.
c	=	Time since closure, years; for an active landfill $c = 0$ and $e^{-kc} = 1$.
3.6×10^{-9}	=	Conversion factor.

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

- (b) **Tier 1.** The permittee must compare the calculated NMOC mass emission rate to the standard of 34 megagrams per year.
- (1) If the NMOC emission rate calculated in **Condition E4-7(a)** is less than 34 megagrams per year, then the landfill owner or operator must submit an NMOC emission rate report as provided in **Condition E4-10(a)**, and must recalculate the NMOC mass emission rate annually as required in **Condition E4-10(a)**.
 - (2) If the calculated NMOC emission rate as calculated in **Condition E4-7(a)** is equal to or greater than 34 megagrams per year, then the permittee must either:
 - (i) Submit a gas collection and control system design plan within 1 year as specified in **Condition E4-11** and install and operate a gas collection and control system within 30 months according to §62.16714(b) and (c);
 - (ii) Determine a site-specific NMOC concentration and recalculate the NMOC emission rate using the Tier 2 procedures provided in **Condition E4-7(c)**; or
 - (iii) Determine a site-specific methane generation rate constant and recalculate the NMOC emission rate using the Tier 3 procedures provided in **Condition E4-7(d)**.
- (c) **Tier 2.** The landfill owner or operator must determine the site-specific NMOC concentration using the following sampling procedure. The landfill owner or operator must install at least two sample probes per hectare, evenly distributed over the landfill surface that has retained waste for at least 2 years. If the landfill is larger than 25 hectares in area, only 50 samples are required. The probes should be evenly distributed across the sample area. The sample probes should be located to avoid known areas of nondegradable solid waste. The permittee must collect and analyze one sample of landfill gas from each probe to determine the NMOC concentration using Method 25 or 25C of appendix A of this part. Taking composite samples from different probes into a single cylinder is allowed; however, equal sample volumes must be taken from each probe. For each composite, the sampling rate, collection times, beginning and ending cylinder vacuums, or alternative volume measurements must be recorded to verify that composite volumes are equal. Composite sample volumes should not be less than one liter unless evidence can be provided to substantiate the accuracy of smaller volumes. Terminate compositing before the cylinder approaches ambient pressure where measurement accuracy diminishes. If more than the required number of samples are taken, all samples must be used in the analysis. The landfill owner or operator must divide the NMOC concentration from Method 25 or 25C of appendix A of this part by six to convert from C_{NMOC} as carbon to C_{NMOC} as hexane. If the landfill has an active or passive gas removal system in place, Method 25 or 25C samples may be collected from these systems instead of surface probes provided the removal system can be shown to provide sampling as representative as the two sampling probe per hectare requirement. For active collection systems, samples may be collected from the common header pipe. The sample location on the common header pipe must be before any gas moving, condensate removal, or treatment system equipment. For active collection systems, a minimum of three samples must be collected from the header pipe.
- (1) Within 60 days after the date of determining the NMOC concentration and corresponding NMOC emission rate, the owner or operator must submit the results according to **Conditions E4-10**.
 - (2) The permittee shall recalculate the NMOC mass emission rate using the equations in **Conditions E4-7(a)(1) or E4-7(a)(2)** using the average site-specific NMOC concentration from the collected samples instead of the provided default values provided in this condition.

- (3) If the resulting NMOC mass emission rate is less than 34 megagrams per year, then the permittee shall submit a periodic estimate of NMOC emissions in an NMOC emission rate report according to **Condition E4-10**, and shall recalculate the NMOC mass emission rate annually as required in **Condition E4-10**. The site-specific NMOC concentration must be retested every 5 years using the methods in **Condition E4-10(c)**.
- (4) If the NMOC mass emission rate as calculated using the Tier 2 site-specific NMOC concentration is equal to or greater than 34 megagrams per year, the permittee shall either:
 - (i) Submit a gas collection and control system design plan within 1 year as specified in **Condition E4-10** and install and operate a gas collection and control system within 30 months according to §62.16714(b) and (c);
 - (ii) Determine a site-specific methane generation rate constant and recalculate the NMOC emission rate using the site-specific methane generation rate using the Tier 3 procedures specified in **Condition E4-7(d)**; or
 - (iii) Conduct a surface emission monitoring demonstration using the Tier 4 procedures specified in **Condition E4-7(f)**.
- (d) **Tier 3.** The permittee shall determine the site-specific methane generation rate constant using the procedures provided in Method 2E of appendix A of the NSPS. The permittee shall estimate the NMOC mass emission rate using equations in **Conditions E4-7(a)(1) or E4-7(a)(2)** and using a site-specific methane generation rate constant, and the site-specific NMOC concentration as determined in **Conditions E4-7(C)** instead of the default values provided in **Condition E4-7(a)(1)**. The permittee shall compare the resulting NMOC mass emission rate to the standard of 34 megagrams per year.
 - (1) If the NMOC mass emission rate as calculated using the Tier 2 site-specific NMOC concentration and Tier 3 site-specific methane generation rate is equal to or greater than 34 megagrams per year, the permittee shall either:
 - (i) Submit a gas collection and control system design plan within 1 year as specified in **Condition E4-11** and install and operate a gas collection and control system within 30 months according to §62.16714(b) and (c); or
 - (ii) Conduct a surface emission monitoring demonstration using the Tier 4 procedures specified in **Condition E4-7(f)**.
 - (2) If the NMOC mass emission rate is less than 34 megagrams per year, then the permittee shall recalculate the NMOC mass emission rate annually using Equation 1 or Equation 2 in **Conditions E4-7(a)(1) or E4-7(a)(2)** and using the site-specific Tier 2 NMOC concentration and Tier 3 methane generation rate constant and submit a periodic NMOC emission rate report as provided in **Condition E4-10**. The calculation of the methane generation rate constant is performed only once, and the value obtained from this test must be used in all subsequent annual NMOC emission rate calculations.
- (e) **Alternative methods.** The permittee may use other methods to determine the NMOC concentration or a site-specific methane generation rate constant as an alternative to the methods required in **Condition E4-7(c) and Conditions E4-7(d)** if the method has been approved by the Technical Secretary.
- (f) **Tier 4.** The permittee shall demonstrate that surface methane emissions are below 500 parts per million. Surface emission monitoring must be conducted on a quarterly basis using the following procedures. Tier 4 is allowed only if the permittee can demonstrate that NMOC emissions are greater than or equal to 34 Mg/yr but less than 50 Mg/yr using Tier 1 or Tier 2. If both Tier 1 and Tier 2 indicate NMOC emissions are 50 Mg/yr or greater, then Tier 4 cannot be used. In addition, the landfill must meet the criteria in **Condition E4-7(f)(8)**.
 - (1) The permittee shall measure surface concentrations of methane along the entire perimeter of the landfill and along a pattern that traverses the landfill at no more than 30-meter intervals using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in §62.16720(d).
 - (2) 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 landfill.
 - (3) Surface emission monitoring must be performed in accordance with section 8.3.1 of Method 21 of appendix A-7 of the NSPS, except that the probe inlet must be placed no more than 5 centimeters above the landfill surface; the

constant measurement of distance above the surface should be based on a mechanical device such as with a wheel on a pole, except as described in **Condition E4-7(f)(3)(i)**.

- (i) The permittee shall use a wind barrier, similar to a funnel, when onsite average wind speed exceeds 4 miles per hour or 2 meters per second or gust exceeding 10 miles per hour. Average on-site wind speed must also 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 SEM monitor, and must be placed on the ground, to ensure wind turbulence is blocked. SEM cannot be conducted if average wind speed exceeds 25 miles per hour.
 - (ii) Landfill 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 provided in §62.16720(d).
- (4) Each owner or operator seeking to comply with the Tier 4 provisions in **Condition E4-7(f)** must maintain records of surface emission monitoring as provided in §62.16726(g) and submit a Tier 4 surface emissions report as provided in §62.16724(d)(4)(iii).
 - (5) If there is any measured concentration of methane of 500 parts per million or greater from the surface of the landfill, the permittee shall submit a gas collection and control system design plan within 1 year of the first measured concentration of methane of 500 parts per million or greater from the surface of the landfill according to **Condition E4-11** and install and operate a gas collection and control system according to §62.16714(b) and (c) within 30 months of the most recent NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year based on Tier 2.
 - (6) If after four consecutive quarterly monitoring periods at a landfill, other than a closed landfill, there is no measured concentration of methane of 500 parts per million or greater from the surface of the landfill, the permittee shall continue quarterly surface emission monitoring using the methods specified in **Condition E4-7(f)**.
 - (7) If after four consecutive quarterly monitoring periods at a closed landfill there is no measured concentration of methane of 500 parts per million or greater from the surface of the landfill, the permittee shall conduct annual surface emission monitoring using the methods specified in **Condition E4-7(f)**.
 - (8) If a landfill has installed and operates a collection and control system that is not required by this subpart, then the collection and control system must meet the following criteria:
 - (i) The gas collection and control system must have operated for at least 6,570 out of 8,760 hours preceding the Tier 4 surface emissions monitoring demonstration.
 - (ii) During the Tier 4 surface emissions monitoring demonstration, the gas collection and control system must operate as it normally would to collect and control as much landfill gas as possible.

Compliance Method: Compliance with this condition shall be demonstrated by the reporting requirements included in this condition.

TAPCR 1200-03-09-.03(8) and 40 CFR 62.16718 (a)(1) through (6)

- E4-8.** When calculating emissions for Prevention of Significant Deterioration purposes, the permittee shall estimate the NMOC emission rate for comparison to the Prevention of Significant Deterioration major source and significance levels in 40 CFR §51.166 or 40 CFR §52.21 using Compilation of Air Pollutant Emission Factors, Volume I: Stationary Point and Area Sources (AP-42) or other approved measurement procedures.

TAPCR 1200-03-09-.03(8) and 40 CFR 62.16718(c)

- E4-9.** An amended design capacity report must be submitted to the Technical Secretary providing notification of an increase in the design capacity of the landfill, within 90 days of an increase in the maximum design capacity of the landfill to meet or exceed 2.5 million megagrams and 2.5 million cubic meters. This increase in design capacity may result from an increase in the permitted volume of the landfill or an increase in the density as documented in the annual recalculation required in § 62.16726(f).

These reports must be certified by a responsible official consistent with **Condition B4** of this permit and shall be submitted to The Technical Secretary at the address in **Condition E2(b)** of this permit.

Compliance Method: Included with the requirement.

TAPCR 1200-03-09-.03(8) and §62.16724(b)

E4-10. The permittee shall submit an NMOC emission rate report to the Technical Secretary annually, except as provided for in **Conditions E4-10(a) or E4-10(c)**. The Technical Secretary may request such additional information as may be necessary to verify the reported NMOC emission rate. These reports must be certified by a responsible official consistent with **Condition B4** of this permit and shall be submitted to The Technical Secretary at the address in **Condition E2(d)** of this permit, with a copy to the Division's Compliance Validation Program.

- (a) The NMOC emission rate report shall contain an annual or 5-year estimate of the NMOC emission rate calculated using the formula and procedures provided in **Condition E4-7**.
- (b) The NMOC emission rate report must include all the data, calculations, sample reports and measurements used to estimate the annual or 5-year emissions.
- (c) If the estimated NMOC emission rate as reported in the annual report to the Technical Secretary is less than 34 megagrams per year in each of the next 5 consecutive years, the owner or operator may elect to submit, following the procedure specified in **Condition E4-7**, an estimate of the NMOC emission rate for the next 5-year period in lieu of the annual report. 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 an NMOC emission rate is estimated. All data and calculations upon which this estimate is based must be provided to the Technical Secretary. 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 Technical Secretary. 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) Each owner or operator subject to the requirements of Subpart OOO is exempted from the requirements to submit an NMOC emission rate report, after installing a collection and control system that complies with § 62.16714(b) and (c), during such time as the collection and control system is in operation and in compliance with §§ 62.16716 and 62.16720.

Compliance Method: Included with the requirement.

TAPCR 1200-03-09-.03(8) and 40 CFR 62.16724(c).

E4-11. Collection and control system design plan. The permittee shall submit a landfill gas site-specific design plan for each gas collection and control system if required by 40 CFR 62.16714(e). The collection and control system design plan must be prepared and approved by a professional engineer and must meet the following requirements:

- (a) The collection and control system as described in the design plan must meet the design requirements in § 62.16714(b) and (c).
- (b) The collection and control system design plan must include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping, or reporting provisions of §§ 62.16716 through 62.16726 proposed by the owner or operator.
- (c) The collection and control system design plan must either conform to specifications for active collection systems in § 62.16728 or include a demonstration to the Technical Secretary's satisfaction of the sufficiency of the alternative provisions to § 62.16728.
- (d) Each owner or operator of an MSW landfill having a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters must submit a copy of the collection and control system design plan cover page that contains the engineer's seal to the Technical Secretary within 1 year of the first NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year, except as follows:

- (1) If the permittee elects to recalculate the NMOC emission rate after Tier 2 NMOC sampling and analysis as provided in **Condition E4-7(c)** and the resulting rate is less than 34 megagrams per year, annual periodic reporting must be resumed, using the Tier 2 determined site-specific NMOC concentration, until the calculated NMOC emission rate is equal to or greater than 34 megagrams per year or the landfill is closed. The revised NMOC emission rate report, with the recalculated NMOC emission rate based on NMOC sampling and analysis, must be submitted to the Technical Secretary within 180 days of the first calculated exceedance of 34 megagrams per year.
- (2) If the permittee elects to recalculate the NMOC emission rate after determining a site-specific methane generation rate constant k , as provided in Tier 3 in **Condition E4-7(d)**, and the resulting NMOC emission rate is less than 34 megagrams per year, annual periodic reporting must be resumed. The resulting site-specific methane generation rate constant k must be used in the NMOC emission rate calculation until such time as the emissions rate calculation results in an exceedance. The revised NMOC emission rate report based on the provisions in **Condition E4-7(d)** and the resulting site-specific methane generation rate constant k must be submitted to the Technical Secretary within 1 year of the first calculated NMOC emission rate equaling or exceeding 34 megagrams per year.
- (3) If the permittee elects to demonstrate that site-specific surface methane emissions are below 500 parts per million methane, based on the provisions **Condition E4-7(f)**, then the permittee shall submit annually a Tier 4 surface emissions report as specified in **Condition E4-11(d)(3)** to the Technical Secretary until a surface emissions readings of 500 parts per million methane or greater is found. If the Tier 4 surface emissions report shows no surface emissions readings of 500 parts per million methane or greater for four consecutive quarters at a closed landfill, then the permittee may reduce Tier 4 monitoring from a quarterly to an annual frequency. The Technical Secretary may request such additional information as may be necessary to verify the reported instantaneous surface emission readings. The Tier 4 surface emissions report must clearly identify the location, date, and time (to the nearest second), average wind speeds including wind gusts, and reading (in parts per million) of any value 500 parts per million methane or greater, other than non-repeatable, momentary readings. For location, you must determine the latitude and longitude coordinates using an instrument with an accuracy of at least 4 meters. The coordinates must be in decimal degrees with at least five decimal places. The Tier 4 surface emission report should also include the results of the most recent Tier 1 and Tier 2 results in order to verify that the landfill does not exceed 50 Mg/yr of NMOC.
 - (i) The initial Tier 4 surface emissions report must be submitted annually to the Technical Secretary, starting within 30 days of completing the fourth quarter of Tier 4 surface emissions monitoring that demonstrates that site-specific surface methane emissions are below 500 parts per million methane.
 - (ii) The Tier 4 surface emissions rate report must be submitted to the Technical Secretary within 1 year of the first measured surface exceedance of 500 parts per million methane.
- (e) The permittee shall notify the Technical Secretary that the design plan is completed and submit a copy of the plan's signature page. The Technical Secretary has 90 days to decide whether the design plan should be submitted for review. If the Technical Secretary chooses to review the plan, the approval process continues as described in 40 CFR 62.16724(d)(6). However, if the Technical Secretary indicates that submission is not required or does not respond within 90 days, the permittee can 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 shall 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 Technical Secretary 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. A wide variety of system designs are possible, such as vertical wells, combination horizontal and vertical collection systems, or horizontal trenches only, leachate collection components, and passive systems. If the Technical Secretary does not approve or disapprove the design plan, or does not request that additional information be submitted within 90 days of receipt, then the permittee may continue with implementation of the design plan, recognizing they would be proceeding at their own risk.

- (g) If the permittee chooses to demonstrate compliance with the emission control requirements of 40 CFR 62 Subpart OOO using a treatment system as defined in this subpart, then the permittee shall prepare a site-specific treatment system monitoring plan as specified in § 62.16726(b)(5).

Compliance Method: Included with the requirement.

TAPCR 1200-03-09-.03(8) and 40 CFR 62.16724(d)

- E4-12.** Each permittee subject to the provisions of § 62.16714(e) shall keep for at least 5 years of up-to-date, readily accessible, on-site records of:

- (a) the design capacity report which triggered 40 CFR 62.16714(e),
- (b) the current amount of solid waste in-place,
- (b) the year-by-year waste acceptance rate.

Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.

Compliance Method: Included with the requirement.

TAPCR 1200-03-09-.03(8) and 40 CFR 62.16726(a)

- E4-13.** Each owner or operator required to submit reports to the EPA via CEDRI (CEDRI can be accessed through the EPA's CDX). The owner or operator must use the appropriate electronic report in CEDRI for this subpart or an alternate electronic file format consistent with the XML schema listed on the CEDRI website (<https://www3.epa.gov/ttn/chief/cedri/index.html>). If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the owner or operator must submit the report to the Administrator at the physical address listed in **Condition E2(b)** of this permit. Once the form has been available in CEDRI for 90 calendar days, the owner or operator must begin submitting all subsequent reports via CEDRI.

Compliance Method: Included with the requirement.

TAPCR 1200-03-09-.02(11)(e)1(iii), 40 CFR 62.16724(j)(2)

- E4-14. Liquids addition.** For liquids addition as provided in §62.16724(l), each owner or operator must submit to the Technical Secretary, annually, the following information:

- (1) Volume of leachate recirculated (gallons per year) and the reported basis of those estimates (records or engineering estimates).
- (2) Total volume of all other liquids added (gallons per year) and the reported basis of those estimates (records or engineering estimates).
- (3) Surface area (acres) over which the leachate is recirculated (or otherwise applied).
- (4) Surface area (acres) over which any other liquids are applied.
- (5) The total waste disposed (megagrams) in the areas with recirculated leachate and/or added liquids based on on-site records to the extent data are available, or engineering estimates and the reported basis of those estimates.
- (6) The annual waste acceptance rates (megagrams per year) in the areas with recirculated leachate and/or added liquids, based on on-site records to the extent data are available, or engineering estimates.
- (7) The initial report must contain items in **Condition E4-14(1) through E4-14(6)** for the most recent 365 days as well as for each of the previous 10 years, to the extent historical data are available in on-site records.
- (8) Subsequent reports must contain items in **Condition E4-14(1) through E4-14(6)** for the 365-day period following the 365-day period included in the previous report, and the report must be submitted no later than 365 days after the date the previous report was submitted.
- (9) Landfills in the closed landfill subcategory are exempt from reporting requirements contained in Condition E4-14(1) through E4-14(6).
- (10) Landfills may cease annual reporting of items in **Condition E4-14(1) through E4-14(6)** once they have submitted the closure report required by §62.16724(f).
- (11) If you add any liquids in a controlled fashion to the waste mass and do not comply with the bioreactor requirements in §§63.1947, 63.1955(b), §63.1982(a), and §63.1982(b), you must keep a record of calculations showing that the percent moisture by weight expected in the waste mass to which liquid is added is less than 40 percent. The calculation must consider the waste mass, moisture content of the incoming waste, mass of water added to the waste including leachate

recirculation and other liquids addition and precipitation, and the mass of water removed through leachate or other water losses. Moisture level sampling or mass balances calculations can be used. You must document the calculations and the basis of any assumptions. Keep the record of the calculations until you cease liquids addition.

Compliance Method: Included with the requirement.

TAPCR 1200-03-09-.03(8) and 40 CFR 62.16724(1)

E5. SOURCE SPECIFIC PERMIT REQUIREMENTS AFTER MARCH 15, 2024:

Condition E5-1 through E5-32 applies to the Landfill after March 15, 2024 (Subparts OOO and AAAA).

E5-1. The existing landfill gas collection system is controlled by an open (non-enclosed) flare at the Northwest Tennessee Disposal Corporation Landfill. The flare is subject to TAPCR 1200-03-16-.01(11), 40 CFR 63.11(b), and 40 CFR §60.18 which require the following for non-enclosed flares:

- (a) The non-enclosed flare shall be designed for and operated with no visible emissions as determined by Reference Method 22 with a consecutive two-hour observation period, except for periods not to exceed a total of five minutes during any two consecutive hours;
- (b) The non-enclosed flare shall be operated with a flame present at all times. The presence of a flame shall be monitored using a thermocouple or some other equivalent device at the pilot light or flame itself. In the event the collection or control system is inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within 1 hour;
- (c) The net heating value of the gas being combusted must be 7.45 MJ/scm (200 Btu/scf) or greater for open (non-assisted) flares. The net heating value of the gas being combusted shall be determined by the methods specified in TAPCR 1200-03-16-.01(11)(f), 40 CFR 63.11(b), and 40 CFR §60.18(f)(3);
- (d)
 - (i) The open (nonassisted) flares shall be designed for and operated with an exit velocity, as determined by the methods specified in TAPCR 1200-03-16-.01(11)(f)4 less than 18.3 m/sec (60 ft/sec), except as provided in (ii) and (iii) below;
 - (ii) The open (nonassisted) flares designed for and operated with an exit velocity, as determined by the methods specified in TAPCR 1200-03-16-.01(11)(f)4 equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec) are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf);
 - (iii) The open (nonassisted) flares designed for and operated with an exit velocity, as determined by the methods specified in TAPCR 1200-03-16-.01(11)(f)4 less than velocity, V_{max} , as determined by the method specified in TAPCR 1200-03-16-.01(11)(f)5 and less than 122 m/sec (400 ft/sec) are allowed.
- (e) The Flares shall be nonassisted;

Compliance Method: Compliance shall be demonstrated by a non-enclosed flare performance test as required by **Conditions E3-15, E5-23**, and the operation and monitoring of control equipment required by **Condition E5-24**.

TAPCR 1200-03-09-.02(11)(e)1(iii), TAPCR 1200-03-16, §62.16714(b), §62.16722, §62.16716, §63.1958(e)(1)(i), §63.1959(b)(2)(iii)(A), §63.11(b) and §60.18

E5-2. Each owner or operator seeking to comply with §62.16714(c) and §63.1959(b)(2)(iii) using a non-enclosed flare must install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment:

- (a) A heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame.
- (b) A device that records flow to the flare and bypass of the flare (if applicable). The permittee must:
 - (1) Install, calibrate, and maintain a gas flow rate measuring device that records the flow to the control device at least every 15 minutes; and

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

Compliance Method: Compliance shall be demonstrated by the monitoring and recordkeeping required by **Condition E5-24. Condition E5-2(b)(2)** does not apply if bypass to the flare is nonexistent.

40 CFR § 62.16722(c), §63.1961(c), and TAPCR 1200-03-09-.02(11)(e)1(iii)

- E5-3.** The permittee shall operate the landfill gas collection system such that gas is collected from each area, cell, or group of cells in which solid waste has been in place for:

- (a) Five years or more if active; or
 (b) Two years or more if closed or at final grade

Compliance Method: Compliance shall be demonstrated by the monitoring and recordkeeping required by **Conditions E5-10, E5-21, E5-22, E5-23, E5-24, and E5-25.**

40 CFR §62.16716(a), §63.1958(a), and TAPCR 1200-03-09-.02(11)(e)1(iii)

- E5-4.** The permittee shall operate the collection system with negative pressure at each wellhead except under the following conditions:

- (a) A fire or increased well temperature. The permittee must record instances when positive pressure occurs in efforts to avoid a fire. These records must be submitted with the annual reports as provided in 40 CFR §62.16724(h)(1) and the semiannual reports as provided in 40 CFR §63.1981(h);
 (b) Use of a geomembrane or synthetic cover. The permittee must develop acceptable pressure limits in the design plan;
 (c) A decommissioned well. A well may experience a static positive pressure after shutting down to accommodate for declining flows. All design changes must be approved by the Technical Secretary as specified in 40 CFR §62.16724(d);

Compliance Method: Compliance shall be demonstrated by the monitoring and recordkeeping required by **Conditions E5-26 and E5-27.**

40 CFR 62.16716(b), 40 CFR 63.1958(b), and TAPCR 1200-03-09-.02(11)(e)1(iii)

- E5-5.** The permittee shall operate the gas collection and control system (GCCS) to comply with (a) through (c) of this condition:

- (a) The permittee shall operate each interior wellhead in the collection system with a landfill gas temperature less than 62.8 degrees Celsius (145 degrees Fahrenheit). The permittee may establish a higher operating temperature value at a particular well. A higher operating value demonstration must be submitted to the Technical Secretary for approval and must include supporting data demonstrating that the elevated parameter neither causes fires nor significantly inhibits anaerobic decomposition by killing methanogens. The demonstration must satisfy both criteria in order to be approved (i.e., neither causing fires nor killing methanogens is acceptable).
- (b) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the operational standard for temperature in §63.1958(c)(1), unless a higher operating temperature value has been approved by the Administrator under this subpart or under 40 CFR part 60, subpart WWW; 40 CFR part 60, subpart XXX; or a federal plan or EPA-approved and effective state plan or tribal plan that implements either 40 CFR part 60, subpart Cc or 40 CFR part 60, subpart Cf, the permittee must initiate enhanced monitoring at each well with a measurement of landfill gas temperature greater than 62.8 degrees Celsius (145 degrees Fahrenheit) as follows:
- (1) Visual observations for subsurface oxidation events (smoke, smoldering ash, damage to well) within the radius of influence of the well.
 - (2) Monitor oxygen concentration as provided in §63.1961(a)(2) and §62.16722;
 - (3) Monitor temperature of the landfill gas at the wellhead as provided in §63.1961(a)(4).
 - (4) Monitor temperature of the landfill gas every 10 vertical feet of the well as provided in §63.1961(a)(6).
 - (5) Monitor the methane concentration with a methane meter using EPA Method 3C of appendix A-6 to part 60, EPA Method 18 of appendix A-6 to part 60 of this chapter, or a portable gas composition analyzer to monitor the methane

levels provided that the analyzer is calibrated and the analyzer meets all quality assurance and quality control requirements for EPA Method 3C or EPA Method 18.

- (6) Monitor carbon monoxide concentrations, as follows:
- (i) Collect the sample from the wellhead sampling port in a passivated canister or multi-layer foil gas sampling bag (such as the Cali-5-Bond Bag) and analyze that sample using EPA Method 10 of appendix A-4 to part 60 of this chapter, or an EPA approved equivalent method with a detection limit of at least 100 ppmv of carbon monoxide in high concentrations of methane; and
 - (ii) Collect and analyze the sample from the wellhead using EPA Method 10 of appendix A-4 to part 60, or an EPA approved equivalent method, to measure carbon monoxide concentrations. In a letter dated September 30, 2021, the EPA approved an alternative test method for carbon monoxide concentration. This alternative test method will be posted as ALT-144 on The EPA's website at <http://www3.epa.gov/ttn/emc/approalt.html> for use by facilities subject to these requirements.
 - (iii) In letters dated October 6, 2021 (see attachment 9), the EPA approved alternative test methods to monitor carbon monoxide concentrations. The approved tests were due to comments from letters from the National Waste & Recycling Association, the Solid Waste Association of North America, Waste Management, and Republic Services (collectively, the Solid Waste Working Group or SWWG).
- (7) The enhanced monitoring as provided in §63.1961(a)(5) must begin 7 days after the first measurement of landfill gas temperature greater than 62.8 degrees Celsius (145 degrees Fahrenheit); and
- (8) The enhanced monitoring as provided in §63.1961(a)(5) must be conducted on a weekly basis. If four consecutive weekly carbon monoxide readings are under 100 ppmv, then enhanced monitoring may be decreased to monthly. However, if carbon monoxide readings exceed 100 ppmv again, the landfill must return to weekly monitoring.
- (9) The enhanced monitoring as provided in §63.1961(a)(5) can be stopped once a higher operating value is approved, at which time the monitoring provisions issued with the higher operating value should be followed, or once the measurement of landfill gas temperature at the wellhead is less than or equal to 62.8 degrees Celsius (145 degrees Fahrenheit).
- (c) For each wellhead with a measurement of landfill gas temperature greater than or equal to 73.9 degrees Celsius (165 degrees Fahrenheit), the permittee must initiate temperature monitoring of the landfill gas every 10 vertical feet of the well annually. This temperature can be monitored either with a removable thermometer, or using temporary or permanent thermocouples installed in the well.

Compliance Method: Compliance shall be demonstrated by the monitoring and recordkeeping required by **Conditions E5-14 and E5-30.**

40 CFR §63.1958(c), 40 CFR §63.1961(a)(5), 40 CFR §62.16722(a)(2), and TAPCR 1200-03-09-.02(11)(e)1(e)1(iii)

- E5-6.** The permittee shall operate the collection system so that the methane concentration is less than 500 parts per million above background at the surface of the landfill. To determine if this level is exceeded, the permittee must conduct surface testing using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in 40 CFR §62.16720(d). The permittee must conduct surface testing around the perimeter of the collection area and along a pattern that traverses the landfill at no more than 30-meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover and all cover penetrations. Thus, the permittee must monitor any openings that are within an area of the landfill 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.

Compliance Method: Compliance shall be demonstrated by the monitoring and recordkeeping required by **Condition E5-11.**

40 CFR 62.16716(d), 40 CFR 63.1958(d), and TAPCR 1200-03-09-.02(11)(e)1(iii)

- E5-7.** The permittee shall operate the system such that all collected gases are vented to a control system designed and operated in compliance with §62.16714(c). In the event the gas collection and control system (GCCS) is not operating, the gas mover system must be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere

must be closed within 1 hour of the GCCS not operating. The permittee shall operate the system the GCCS at all times when the collected gas is routed to the system.

Compliance Method: Compliance shall be demonstrated by the monitoring and recordkeeping required by **Condition E5-24**.

40 CFR §§ 62.16716(e), and (f); 40 CFR §§63.1958 (e) and (f); and TAPCR 1200-03-09-.02(11)(e)1(iii)

E5-8. If monitoring demonstrates that the operational requirements in **Conditions E5-4, E5-5, and E5-6** are not met, corrective action must be taken as specified in §§62.16720(a)(3) and (5) or §62.16720(c), §63.1960(a)(3) and (5) or (c). If corrective actions are taken as specified in 40 CFR §62.16720, the monitored exceedance is not a violation of the operational requirements.

Compliance Method: Compliance shall be demonstrated by the monitoring and recordkeeping required by **Conditions E5-9, E5-21, E5-24, and E5-26**.

40 CFR 62.16716(g), 40 CFR 63.1958(g), and TAPCR 1200-03-09-.02(11)(e)1(iii)

E5-9. Except as provided in 40 CFR §62.16724(d)(2) and §63.1981(d)(2), the specified methods in (a) through (e) of this condition must be used to determine whether the gas collection system is in compliance with 40 CFR §62.16714(b)(2) and §63.1959(b)(2)(ii).

(a) For the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine compliance with §62.16714(b)(2)(i) and §63.1959(b)(2)(ii)(C)(1), either Equation 5 or Equation 6 must be used. The methane generation rate constant (k) and methane generation potential (Lo) kinetic factors should be those published in the most recent AP-42 or other site-specific values demonstrated to be appropriate and approved by the Administrator. If k has been determined as specified in §62.16718(a)(4) and §63.1959(a)(4), the value of k determined from the test must be used. A value of no more than 15 years must be used for the intended use period of the gas mover equipment. The active life of the landfill is the age of the landfill plus the estimated number of years until closure. If a collection and control system has been installed, actual flow data may be used to project the maximum expected gas generation flow rate instead of, or in conjunction with, Equation 5 or Equation 6 in §60.762(a)(1)(i) and (ii). If the landfill is still accepting waste, the actual measured flow data will not equal the maximum expected gas generation rate, so calculations using Equation 5 or Equation 6 or other methods must be used to predict the maximum expected gas generation rate over the intended period of use of the gas control system equipment.

(b) For the purposes of determining sufficient density of gas collectors for compliance with §62.16714(b)(2)(ii) and §63.1959(b)(2)(ii)(B)(2), the permittee must design a system of vertical wells, horizontal collectors, or other collection devices, satisfactory to the Technical Secretary, capable of controlling and extracting gas from all portions of the landfill sufficient to meet all operational and performance standards.

(c) For the purpose of demonstrating whether the gas collection system flow rate is sufficient to determine compliance with §62.16714(b)(2)(iii) and §63.1959(b)(2)(ii)(B)(3), the permittee must measure gauge pressure in the gas collection header applied to each individual well monthly. If a positive pressure exists, action must be initiated to correct the exceedance within 5 calendar days, except for the three conditions allowed under §62.16716(b). Any attempted corrective measure must not cause exceedances of other operational or performance standards.

(1) If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement of positive pressure, the permittee must conduct a root cause analysis and correct the exceedance as soon as practicable, but not later than 60 days after positive pressure was first measured. The permittee must keep records according to §62.16726(e)(3) and §63.1983(e)(3).

(2) If corrective actions cannot be fully implemented within 60 days following the positive pressure or elevated temperature measurement for which the root cause analysis was required, the permittee must also conduct a corrective action analysis and develop an implementation schedule to complete the corrective action(s) as soon as practicable, but no more than 120 days following the measurement of landfill gas temperature greater than 62.8 degrees Celsius (145 degrees Fahrenheit) or positive pressure. The permittee must submit the items listed in §63.1981(h)(7) as part of the next semi-annual report. The permittee must keep records according to §63.1983(e)(5)

(3) If corrective action is expected to take longer than 120 days to complete after the initial exceedance, the permittee must submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the

Administrator, within 75 days of the initial exceedance and in accordance to §63.1981(j). The permittee must keep records according to §63.1983(e)(5)

- (d) Once an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the operational standard for temperature in §63.1958(c)(1), the owner or operator must monitor each well monthly for temperature. If a well exceeds the operating parameter for temperature as provided in §63.1958(c)(1), action must be initiated to correct the exceedance within 5 days. Any attempted corrective measure must not cause exceedances of other operational or performance standards.
- (1) If a landfill gas temperature less than 62.8 degrees Celsius (145 degrees Fahrenheit) cannot be achieved within 15 calendar days of the first measurement of landfill gas temperature greater than 62.8 degrees Celsius (145 degrees Fahrenheit), the permittee must conduct a root cause analysis and correct the exceedance as soon as practicable, but no later than 60 days after a landfill gas temperature greater than 62.8 degrees Celsius (145 degrees Fahrenheit) was first measured. The owner or operator must keep records according to §63.1983(e)(3)
 - (2) If corrective actions cannot be fully implemented within 60 days following the measurement of landfill gas temperature greater than 62.8 degrees Celsius (145 degrees Fahrenheit) for which the root cause analysis was required, the permittee must also conduct a corrective action analysis and develop an implementation schedule to complete the corrective action(s) as soon as practicable, but no more than 120 days following the measurement of landfill gas temperature greater than 62.8 degrees Celsius (145 degrees Fahrenheit). The owner or operator must submit the items listed in §63.1981(h)(7) as part of the next semi-annual report. The owner or operator must keep records according to §63.1983(e)(4).
 - (3) If corrective action is expected to take longer than 120 days to complete after the initial exceedance, the owner or operator must submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the Administrator, according to §63.1981(h)(7) and (j). The owner or operator must keep records according to §63.1983(e)(5).
- (e) An owner or operator seeking to demonstrate compliance with §63.1959(b)(2)(ii)(B)(4) through the use of a collection system not conforming to the specifications provided in §63.1962 must provide information satisfactory to the Administrator as specified in §63.1981(d)(3) demonstrating that off-site migration is being controlled.

Compliance Method: Compliance shall be demonstrated by the monitoring and recordkeeping required by **Conditions E5-23 and E5-24.**

40 CFR §63.1958(c), 40 CFR §62.16720(a), 40 CFR §63.1960(a), and TAPCR 1200-03-09-.02(11)(e)1(iii)

E5-10. For purposes of compliance with **Condition E5-3**, each permittee of a controlled landfill must place each well or design component as specified in the approved design plan as provided in §62.16724(d). Each well must be installed no later than 60 days after the date on which the initial solid waste has been in place for a period of:

- (a) Five years or more if active; or
- (b) Two years or more if closed or at final grade.

Compliance Method: Compliance shall be demonstrated by the monitoring and recordkeeping required by **Conditions E5-21, E5-22, E5-23, E5-24, and E5-25.**

40 CFR §62.16720(b), §63.1960(b), and TAPCR 1200-03-09-.02(11)(e)1(iii)

E5-11. The following procedures must be used for compliance with the surface methane operational standard as provided in 40 CFR §62.16716(d) and 63.1958(d):

- (a) After installation and startup of the gas collection system, the permittee must monitor surface concentrations of methane along the entire perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals (or a site-specific established spacing) for each collection area on a quarterly basis using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in § 62.16720(d) and 63.1960(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 EPA Method 21 of appendix A-7 of 40 CFR part 60, except that the probe inlet must be placed within 5 to 10 centimeters of the ground. Monitoring must be performed during typical meteorological conditions.
- (d) Any reading of 500 parts per million or more above background at any location must be recorded as a monitored exceedance and the actions specified in (1) through (5) below must be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of §62.16716(d) and §63.1958(d).
 - (1) The location of each monitored exceedance must be marked, and the location and concentration recorded. For location, you must determine the latitude and longitude coordinates using an instrument with an accuracy of at least 4 meters. The coordinates must be in decimal degrees with at least five decimal places.
 - (2) Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of 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 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 specified in **Condition E5-11(d)(5)** must be taken, and no further monitoring of that location is required until the action specified in **Condition E5-11(d)(5)** of this section 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 specified in **Conditions E5-11(d)(2) or E5-11(d)(3)** must be re-monitored 1 month from the initial exceedance. If the 1-month re-monitoring shows a concentration less than 500 parts per million above background, no further monitoring of that location is required until the next quarterly monitoring period. If the 1-month re-monitoring shows an exceedance, the actions specified in **Condition E5-11(d)(3) or E5-11(d)(5)** must be taken.
 - (5) For any location where monitored methane concentration equals or exceeds 500 parts per million above background three times within a quarterly period, a new well or other collection device must be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation may be submitted to the Technical Secretary for approval.
- (e) The permittee must implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis.

Compliance Method: Included with the requirement.

40 CFR §62.16720(c), §63.1960(c), and TAPCR 1200-03-09-.02(11)(e)1(iii)

E5-12. Each owner or operator seeking to comply with the provisions in **Condition E5-11** or 40 CFR §62.16718(a)(6) must comply with the following instrumentation specifications and procedures for surface emission monitoring devices:

- (a) The portable analyzer must meet the instrument specifications provided in section 6 of Method 21 of appendix A of this part, except that “methane” replaces all references to “VOC”.
- (b) The calibration gas must be methane, diluted to a nominal concentration of 500 parts per million in air.
- (c) To meet the performance evaluation requirements in section 8.1 of Method 21 of appendix A of this part, the instrument evaluation procedures of section 8.1 of Method 21 of appendix A of this part must be used.
- (d) The calibration procedures provided in sections 8 and 10 of Method 21 of appendix A of this part must be followed immediately before commencing a surface monitoring survey.

Compliance Method: Included with the requirement.

40 CFR §62.16720(d), §63.1960(d), and TAPCR 1200-03-09-.02(11)(e)1(iii)

E5-13. The provisions of this subpart apply at all times, including periods of startup, shutdown, or malfunction. During periods of startup, shutdown, and malfunction, you must comply with the work practice specified in §62.16716(e) in lieu of the compliance provisions in §62.16720.

Compliance Method: Compliance shall be demonstrated by the monitoring and recordkeeping required by **Condition E5-24**.

40 CFR §62.16720(e), §63.1930(b) and TAPCR 1200-03-09-.02(11)(e)1(iii)

E5-14. Except as provided in §62.16724(d)(2), or the monitoring provisions in §63.1961 of this chapter (as well as the provisions in §§63.1958 and 63.1960 of this chapter), or both as alternative means of compliance, for an MS

W landfill with a gas collection and control system used to comply with the provisions of §62.16714(b) and (c). Once the permittee begins to comply with the provisions of §63.1961, the permittee must continue to operate the collection and control device according to those provisions and cannot return to the provisions of §62.16722. Each permittee seeking to comply with §63.1959(b)(2)(ii)(B) for an active gas collection system must install a sampling port and a thermometer, other temperature measuring device, or an access port for temperature measurements at each wellhead and:

- (a) Measure the gauge pressure in the gas collection header on a monthly basis as provided in §63.1960(a)(3); and
- (b) Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as follows:

- (1) The nitrogen level must be determined using Method 3C, unless an alternative test method is established as allowed by 40 CFR §63.1981(d)(2).
- (2) Unless an alternative test method is established as allowed by §63.1981(d)(2), the oxygen level must be determined by an oxygen meter using EPA Method 3A or 3C of appendix A-2 to part 60 of this chapter or ASTM D6522-11 (incorporated by reference, see §63.14). Determine the oxygen level by an oxygen meter using EPA Method 3A or 3C of appendix A-2 to part 60 or ASTM D6522-11 (if sample location is prior to combustion) except that:
 - (i) The span must be set between 10 and 12 percent 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; and
 - (v) The allowable sample bias, zero drift, and calibration drift are ± 10 percent.
- (3) A portable gas composition analyzer may be used to monitor the oxygen levels provided:
 - (i) The analyzer is calibrated; and
 - (ii) The analyzer meets all quality assurance and quality control requirements for EPA Method 3A of appendix A-2 to part 60 of this chapter or ASTM D6522-11 (incorporated by reference, see §63.14).

- (c) Monitor temperature of the landfill gas on a monthly basis as provided in §63.1960(a)(4). The temperature measuring device must be calibrated annually using the procedure in Section 10.3 of EPA Method 2 of appendix A-1 to part 60 of this chapter. Keep records specified in §63.1983(e).

Compliance Method: Compliance shall be demonstrated by the monitoring and recordkeeping required by **Condition E5-24.**

40 CFR §63.1961(a), 40 CFR §62.16722(a) and TAPCR 1200-03-09-.02(11)(e)1(iii)

E5-15. The permittee subject to the provisions of 40 CFR 63 Subpart AAAA seeks to demonstrate compliance with the operational standard for temperature in § 63.1958(c)(1) and a landfill gas temperature measured at either the wellhead or at any point in the well is greater than or equal to 76.7 degrees Celsius (170 degrees Fahrenheit) and the carbon monoxide concentration measured is greater than or equal to 1,000 ppmv, then the permittee must report the date, time, well identifier, temperature and carbon monoxide reading via email to the Technical Secretary within 24 hours of the measurement unless a higher operating temperature value has been approved by the Technical Secretary for the well under 40 CFR 63 Subpart AAAA or under 40 CFR 62 Subpart OOO.

Compliance Method: Included with the requirement.

40 CFR 62.16716(c), 40 CFR 63.1981(k), and TAPCR 1200-03-09-.02(11)(e)1(iii)

E5-16. Each owner or operator seeking to demonstrate compliance with §62.16714(c) and §63.1959(b)(2)(iii) using a device other than a non-enclosed flare or an enclosed combustor or a treatment system must provide information satisfactory to the Administrator as provided in §62.16724(d)(2) and §63.1981(d)(2) describing the operation of the control device, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Administrator must review

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

Compliance Method: Included with the requirement.

40 CFR §62.16722(d), §63.1961(d), and TAPCR 1200-03-09-.02(11)(e)1(iii)

E5-17. Each owner or operator seeking to demonstrate compliance with the 500 parts-per-million surface methane operational standard in §62.16716(d) and §63.1958(d) must monitor surface concentrations of methane according to the procedures provided in §62.16720(c), §63.1960(c), and the instrument specifications in §62.16720(d) and §63.1960(d). Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of 500 parts-per-million or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring.

Compliance Method: Compliance shall be demonstrated by the monitoring and recordkeeping required by **Condition E5-11**.

40 CFR §62.16722(f), §63.1961(f), and TAPCR 1200-03-09-.02(11)(e)1(iii)

E5-18. The permittee who has already been required to submit a design plan as provided in §62.16724(d), or under subpart GGG of this part; 40 CFR part 60, subpart WWW; or a state plan implementing subpart Cc of 40 CFR part 60, must submit a revised design plan to the Administrator for approval as follows:

- (a) At least 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 Technical Secretary according to §62.16724(d).

Compliance Method: Included with the requirement.

40 CFR §62.16724(e) and TAPCR 1200-03-09-.02(11)(e)1(iii)

E5-19. Each owner or operator of a controlled landfill must submit a closure report to the Technical Secretary within 30 days of waste acceptance cessation. The Technical Secretary may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of 40 CFR 258.60. If a closure report has been submitted to the Technical Secretary, no additional wastes may be placed into the landfill without filing a notification of modification as described under 40 CFR §60.7(a)(4) and §63.9(b).

Compliance Method: Included with the requirement.

40 CFR §62.16724(f), §63.1981(f), and TAPCR 1200-03-09-.02(11)(e)1(iii)

E5-20. Each owner or operator of a controlled landfill must submit an equipment removal report to the Technical Secretary 30 days prior to removal or cessation of operation of the control equipment.

- (a) The equipment removal report must contain all of the following items:
 - (1) A copy of the closure report submitted in accordance with **Condition E5-19**
 - (2) A copy of the initial performance test report demonstrating that the 15-year minimum control period has expired, unless the report of the results of the performance test demonstrate that the GCCS will be unable to operate for 15 years due to declining gas flows. In the equipment removal report, the process unit(s) tested, the pollutant(s) tested, and the date that such performance test was conducted may be submitted in lieu of the performance test report if the report has been previously submitted and
 - (3) Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 34 megagrams or greater of NMOC per year.
 - (4) For the closed landfill subcategory, dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 50 megagrams or greater of NMOC per year. If the NMOC emission rate reports have been previously submitted to the EPA's CDX, a statement that the NMOC emission rate reports have

been submitted electronically and the dates that the reports were submitted to the EPA's CDX may be submitted in the equipment removal report in lieu of the NMOC emission rate reports.

- (b) The Technical Secretary may request such additional information as may be necessary to verify that all of the conditions for removal in 40 CFR §62.16714(f) and §63.1957(b) have been met.

Compliance Method: Included with the requirement.

40 CFR §62.16724(g), §63.1957(b), §63.1981(g), and TAPCR 1200-03-09-.02(11)(e)1(iii)

E5-21. The permittee must submit information regarding corrective actions according to (a) and (b) below:

- (a) For corrective action that is required according to §63.1960(a)(3) or (4) and is not completed within 60 days after the initial exceedance, you must submit a notification to the Administrator as soon as practicable but no later than 75 days after the first measurement of positive pressure or temperature exceedance.
- (b) For corrective action that is required according to §63.1960(a)(3) or (4) and is expected to take longer than 120 days after the initial exceedance to complete, you must submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the Administrator as soon as practicable but no later than 75 days after the first measurement of positive pressure or temperature monitoring value of 62.8 degrees Celsius (145 degrees Fahrenheit) or above. The Administrator must approve the plan for corrective action and the corresponding timeline.

Compliance Method: Included with the requirement.

40 CFR §63.1981(j) and TAPCR 1200-03-09-.02(11)(e)1(iii)

E5-22. Except as provided in §63.1981(d)(2) each owner or operator of an MSW landfill subject to the provisions of §63.1959(b)(2)(ii) and (iii) must keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report that triggered §63.1959(b), the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.

Compliance Method: Compliance shall be demonstrated by the monitoring and recordkeeping as specified in this Condition.

40 CFR §62.16726(a), §63.1983(a), and TAPCR 1200-03-09-.02(11)(e)1(iii)

E5-23. Except as provided in §62.16724(d)(2), each owner or operator of a controlled landfill must keep up-to-date, readily accessible records for the life of the control system equipment of the data listed in (a) through (c) of this Condition as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring must be maintained for a minimum of 5 years. Records of the control device vendor specifications must be maintained until removal.

(a) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with 40 CFR §62.16714(b) and §63.1959(b)(2)(ii):

- (1) The maximum expected gas generation flow rate as calculated in §62.16720(a)(1) and §63.1960(a)(1). The permittee may use another method to determine the maximum gas generation flow rate if the method has been approved by the Administrator.
- (2) The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in §62.16728(a)(1) and §63.1962(a)(1) and (2).

(b) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §62.16714(c)(1) through use of a non-enclosed flare, the flare type (i.e., steam-assisted, air-assisted, or non-assisted), all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in 40 CFR 60.18 of this chapter; and continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame or the flare flame is absent.

- (c) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §62.16714(c)(3) and §63.1959(b)(2)(iii)(C) through use of a landfill gas treatment system (LGTS). The owner or operator of the LGTS must:
- (1) Keep records of the flow of landfill gas to, and bypass of, the treatment system.
 - (2) Develop a site-specific treatment monitoring plan, to include:
 - (i) Monitoring records of 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 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) Identify who is responsible (by job title) for data collection.
 - (v) Processes and methods used to collect the necessary data.
 - (vi) Description of the procedures and methods that are used for quality assurance, maintenance, and repair of all continuous monitoring systems.

Compliance Method: Included with the requirement.

40 CFR §62.16726(b), §63.1983(b), and TAPCR 1200-03-09-.02(11)(e)1(iii)

- E5-24.** Except as provided in §62.16724(d)(2) and §63.1981(d)(2), each permittee of a controlled landfill subject to the provisions of this subpart must keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in §62.16722 and §63.1961 as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded.
- (a) Each owner or operator subject to the provisions of this subpart must keep up-to-date, readily accessible continuous records of the indication of flow to the control system and the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines, specified under §62.16722, §63.1961(b)(2)(ii), (c)(2)(ii), and (g)(2).
 - (b) Each owner or operator seeking to comply with the provisions of this subpart by use of a non-enclosed flare must keep up-to-date, readily accessible continuous records of the flame or flare pilot flame monitoring specified under §62.16722(c) and §63.1961(c), and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent.
 - (c) Each owner or operator of a landfill seeking to comply with §62.16714(e) and §63.1959(b)(2) using an active collection system designed in accordance with §62.16714(b) and §63.1959(b)(2)(ii) must keep records of periods when the collection system or control device is not operating.

Compliance Method: Compliance shall be demonstrated by the monitoring and recordkeeping as specified in this Condition.

40 CFR §62.16726(c), 40 CFR §63.1983(c) and TAPCR 1200-03-09-.02(11)(e)1(iii)

- E5-25.** Except as provided in §62.16724(d)(2) and §63.1981(d)(2), each owner or operator subject to the provisions of this subpart must keep for the life of the collection system an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label on each collector that matches the labeling on the plot map.
- (a) Each owner or operator subject to the provisions of this subpart must keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under §62.16720(b) and §63.1960(b).
 - (b) Each owner or operator subject to the provisions of this subpart must keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste excluded from collection as

provided in §62.16728(a)(3)(i) and §63.1962(a)(3)(i) as well as any nonproductive areas excluded from collection as provided in §62.16728(a)(3)(ii) and §63.1962(a)(3)(ii).

Compliance Method: Included with the requirement.

40 CFR §62.16726(d), §63.1983(d), and TAPCR 1200-03-09-.02(11)(e)1(iii)

E5-26. Except as provided in §62.16724(d)(2) §63.1981(d)(2), each owner or operator subject to Subpart OOO or Subpart AAAA must keep for at least 5 years up-to-date, readily accessible records of the items in (a) through (e) of this Condition:

- (a) All collection and control system exceedances of the operational standards in § 63.1958, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance.:
- (b) Each owner or operator subject to the control provisions of this subpart must keep records of each wellhead temperature monitoring value of greater than 62.8 degrees Celsius (145 degrees Fahrenheit), each wellhead nitrogen level at or above 20 percent, and each wellhead oxygen level at or above 5 percent, except:
 - (1) Each owner or operator required to conduct the enhanced monitoring provisions in § 63.1961(a)(5), must also keep records of all enhanced monitoring activities.
 - (2) Each owner or operator required to submit the 24-hour high temperature report in § 63.1981(k), must also keep a record of the email transmission.
- (c) For any root cause analysis for which corrective actions are required in § 63.1960(a)(3)(i)(A) or (a)(4)(i)(A), keep a record of the root cause analysis conducted, including a description of the recommended corrective action(s) taken, and the date(s) the corrective action(s) were completed.
- (d) For any root cause analysis for which corrective actions are required in § 63.1960(a)(3)(i)(B) or (a)(4)(i)(B), keep a record of the root cause analysis conducted, the corrective action analysis, the date for corrective action(s) already completed following the positive pressure reading or high temperature reading, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.
- (e) For any root cause analysis for which corrective actions are required in § 63.1960(a)(3)(i)(C) or (a)(4)(i)(C), keep a record of the root cause analysis conducted, the corrective action analysis, the date for corrective action(s) already completed following the positive pressure reading or high temperature reading, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates, and a copy of any comments or final approval on the corrective action analysis or schedule from the Administrator.

Compliance Method: Included with the requirement.

40 CFR §62.16726(e), §63.1983(e) and TAPCR 1200-03-09-.02(11)(e)1(iii)

E5-27. Except as provided in §62.16724(d)(2) and §63.1981(d)(2), each owner or operator subject to the provisions of this subpart must keep for at least 5 years up-to-date, readily accessible records of all collection and control system monitoring data for parameters measured in §62.16722(a)(1), (2), and (3); §63.1961(a)(1) through (6).

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

For each owner or operator reporting leachate or other liquids addition under § 62.16724(l), keep records of any engineering calculations or company records used to estimate the quantities of leachate or liquids added, the surface areas for which the leachate or liquids were applied, and the estimates of annual waste acceptance or total waste in place in the areas where leachate or liquids were applied.

Compliance Method: Included with the requirement.

40 CFR §62.16726(h)(i)(j), §63.1983(g), and TAPCR 1200-03-09-.02(11)(e)1.(iii)

E5-28. Each owner or operator seeking to comply with §62.16714(b) and §63.1959(b)(2)(i) must site active collection wells, horizontal collectors, surface collectors, or other extraction devices at a sufficient density throughout all gas producing areas using the following procedures unless alternative procedures have been approved by the Administrator.

- (a) The collection devices within the interior must be certified to achieve comprehensive control of surface gas emissions by a professional engineer. The following issues must be addressed in the design: Depths of refuse, refuse gas generation rates and flow characteristics, cover properties, gas system expandability, leachate and condensate management, accessibility, compatibility with filling operations, integration with closure end use, air intrusion control, corrosion resistance, fill settlement, resistance to the refuse decomposition heat, and ability to isolate individual components or sections for repair or troubleshooting without shutting down entire collection system. Each owner or operator seeking to comply with §62.16714(b) and §63.1959(b)(2)(i) must keep for at least 5 years up-to-date, readily accessible records of all collection and control system design plans.
- (b) The sufficient density of gas collection devices determined in **Condition E5-28(a)** must address landfill gas migration issues and augmentation of the collection system through the use of active or passive systems at the landfill perimeter or exterior.
- (c) The placement of gas collection devices determined in **Condition E5-28(a)** must control all gas producing areas, except as provided in (c)(1) and (2) below.
 - (1) Any segregated area of asbestos or nondegradable material may be excluded from collection if documented as provided under 40 CFR §62.16726(d) and §63.1983(d). The documentation must provide the nature, date of deposition, location and amount of asbestos or nondegradable material deposited in the area and must be provided to the Technical Secretary upon request.
 - (2) Any nonproductive area of the landfill may be excluded from control, provided that the total of all excluded areas can be shown to contribute less than 1 percent of the total amount of NMOC emissions from the landfill. The amount, location, and age of the material must be documented and provided to the Technical Secretary upon request. A separate NMOC emissions estimate must be made for each section proposed for exclusion, and the sum of all such sections must be compared to the NMOC emissions estimate for the entire landfill.

(i) The NMOC emissions from each section proposed for exclusion must be computed using Equation 7:

$$Q_i = 2kL_oM_i (e^{-kt_i}) (C_{NMOC}) (3.6 \times 10^{-9}) \quad (\text{Eq. 7})$$

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

k = Methane generation rate constant, year⁻¹.

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

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

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

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

3.6×10^{-9} = Conversion factor.

(ii) If the permittee is proposing to exclude, or cease gas collection and control from, nonproductive physically separated (e.g., separately lined) closed areas that already have gas collection systems, NMOC emissions from each physically separated closed area must be computed using either Equation 3 in §62.16718 or Equation 7 above.

- (3) The values for k and C_{NMOC} determined in field testing must be used if field testing has been performed in determining the NMOC emission rate or the radii of influence (this distance from the well center to a point in the landfill where the pressure gradient applied by the blower or compressor approaches zero). If field testing has not been performed, the default values for k , L_o and C_{NMOC} provided in 40 CFR §62.16718 and §63.1959(a)(1) or the alternative values from 40 CFR §62.16718/ §63.1959(a)(5) must be used. The mass of nondegradable solid waste contained within the given section may be subtracted from the total mass of the section when estimating emissions provided the nature, location, age, and amount of the nondegradable material is documented as provided in **Condition E5-28(c)(1)**.

Each owner or operator seeking to comply with § 62.16714(b) must construct the gas collection devices using the following equipment or procedures:

- (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 to: Convey projected amounts of gases; withstand installation, static, and settlement forces; and withstand planned overburden or traffic loads. The collection system must extend as necessary to comply with emission and migration standards. 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 regard to the need to prevent excessive air infiltration.
- (b) Vertical wells must be placed so as not to endanger underlying liners and must address the occurrence of water within the landfill. Holes and trenches constructed for piped wells and horizontal collectors must be of sufficient cross-section so as to allow for their proper construction and completion including, for example, centering of pipes and placement of gravel backfill. Collection devices 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.
- (c) 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.

Each owner or operator seeking to comply with § 62.16714(c) must convey the landfill gas to a control system in compliance with § 62.16714(c) through the collection header pipe(s). The gas mover equipment must be sized to handle the maximum gas generation flow rate expected over the intended use period of the gas moving equipment using the following procedures:

- (a) For existing collection systems, the flow data must be used to project the maximum flow rate. If no flow data exist, the procedures in paragraph (c)(2) of this section must be used.
- (b) For new collection systems, the maximum flow rate must be in accordance with § 62.16720(a)(1).

Compliance Method: Included with the requirement.

40 CFR §62.16728(a)(b)(c), 40 CFR 63.1962(a)(3), and TAPCR 1200-03-09-.02(11)(e)1(iii)

E5-29. MACT Requirements. 40 CFR 63 Subpart AAAA – National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills.

- (a) The permittee shall comply with all applicable requirements of 40 CFR Part 63 Subpart AAAA – National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills as required by 40 CFR §§ 63.1930 – 63.1990. Compliance with this condition does not relieve the permittee of the responsibility to comply with all applicable requirements of 40 CFR Part 63 Subpart AAAA.
- (b) The permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if the requirements of this subpart have been achieved. Determination of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.
- (c) The SSM provisions of §63.6(e) of subpart A no longer apply to this subpart and the SSM plan developed under paragraph (a) of this section no longer applies. Compliance with the emissions standards and the operating standards of §63.1958 of this subpart is required at all times.

Compliance Method: Included with the requirement.

40 CFR §63.1955, §63.1958, §63.1960, §63.1964, §63.1980 and TAPCR 1200-03-09-.02(11)(e)1(iii)

E5-30. 40 CFR 62 Subpart OOO and 40 CFR 63 Subpart AAAA Reports. The permittee shall submit annual Subpart OOO and semiannual Subpart AAAA reports of the recorded information outlined below. Alternatively, the permittee may submit the annual Subpart OOO report on a semi-annual basis with the Subpart AAAA report. These reports shall be due within 60 days after the end of each reporting period identified in **Condition E2** of this permit. The exceedances reported for this condition do not automatically constitute a violation of the requirements of TAPCR 1200-03-16 provided that good operational practices are utilized for the collection and control system. For enclosed combustors except for boilers and process heaters with design heat input capacity of 44 megawatts (150 million British thermal unit per hour) or greater, all 3-hour periods of operation during which the average temperature was more than 28 degrees Celsius (82 degrees Fahrenheit) below the average combustion temperature during the most recent performance test at which compliance with § 62.16714(c) was determined. Duration, and length of time, shall be measured in days and hours, as applicable. **The annual reports (40 CFR 62 Subpart OOO) shall include the following:**

- (a) Value and length of time (date, time, and duration) for exceedance of applicable parameters monitored under 40 CFR §62.16722(a)(1), (b), (c), (d), and (g).
- (b) 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 as specified under §62.16722.
- (c) Description and duration of all periods when the control device or treatment system was not operating and length of time the control device or treatment system was not operating.
- (d) All periods when the collection system was not operating.
- (e) The location of each exceedance of the 500 parts-per-million methane concentration as provided in §62.16716(d) and the concentration recorded at each location for which an exceedance was recorded in the previous month. For location, you must determine the latitude and longitude coordinates using an instrument with an accuracy of at least 4 meters. The coordinates must be in decimal degrees with at least five decimal places.
- (f) The date of installation and the location of each well or collection system expansion added pursuant to §62.16720(a)(3), (4), (b), and (c)(4).
- (g) For any corrective action analysis for which corrective actions are required in §62.16720(a)(3) or (4) and §63.1981(h) and that take more than 60 days to correct the exceedance, the root cause analysis conducted, including a description of the recommended corrective action(s), the date for corrective action(s) already completed following the positive pressure or elevated temperature reading, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.
- (h) For liquids addition as provided in §62.16724(l), each owner or operator must submit to the Technical Secretary, annually, the following information:
 - (1) Volume of leachate recirculated (gallons per year) and the reported basis of those estimates (records or engineering estimates).
 - (2) Total volume of all other liquids added (gallons per year) and the reported basis of those estimates (records or engineering estimates).
 - (3) Surface area (acres) over which the leachate is recirculated (or otherwise applied).
 - (4) Surface area (acres) over which any other liquids are applied.
 - (5) The total waste disposed (megagrams) in the areas with recirculated leachate and/or added liquids based on on-site records to the extent data are available, or engineering estimates and the reported basis of those estimates.
 - (6) The annual waste acceptance rates (megagrams per year) in the areas with recirculated leachate and/or added liquids, based on on-site records to the extent data are available, or engineering estimates.
 - (7) The initial report must contain items in **Condition E5-30(h)(1) through E5-30(h)(6)** for the most recent 365 days as well as for each of the previous 10 years, to the extent historical data are available in on-site records.
 - (8) Subsequent reports must contain items in **Condition E5-30(h)(1) through E5-30(h)(6)** for the 365-day period following the 365-day period included in the previous report, and the report must be submitted no later than 365 days after the date the previous report was submitted.
 - (9) Landfills in the closed landfill subcategory are exempt from reporting requirements contained in **Condition E5-30(h)(1) through E5-30(h)(6)**.

- (10) Landfills may cease annual reporting of items in **Condition E5-30(h)(1) through E5-30(h)(6)** once they have submitted the closure report required by §62.16724(f).

The semiannual reports (40 CFR 63 Subpart AAAA) shall include the following:

- (i) Indicate the number of times each of the applicable parameters monitored under § 63.1958(b) and (c) were exceeded. For each instance, report the date, time, and duration of each exceedance.
- (j) 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 as specified under §63.1961.
- (k) Description and duration of all periods when the control device or treatment system was not operating and length of time the control device or treatment system was not operating.
- (l) All periods when the collection system was not operating.
- (m) The location of each exceedance of the 500 parts-per-million methane concentration as provided in §63.1958(d) and the concentration recorded at each location for which an exceedance was recorded in the previous month. For location, you must determine the latitude and longitude coordinates using an instrument with an accuracy of at least 4 meters. The coordinates must be in decimal degrees with at least five decimal places.
- (n) The date of installation and the location of each well or collection system expansion added pursuant to § 63.1960(a)(3) and (4), (b), and (c)(4).
- (o) For any corrective action analysis for which corrective actions are required in § 63.1960(a)(3)(i) or (a)(5) and that take more than 60 days to correct the exceedance, the root cause analysis conducted, including a description of the recommended corrective action(s), the date for corrective action(s) already completed following the positive pressure or high temperature reading, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.
- (p) Each owner or operator required to conduct enhanced monitoring in §§ 63.1961(a)(5) and (6) must include the results of all monitoring activities conducted during the period.
 - (1) For each monitoring point, report the date, time, and well identifier along with the value and units of measure for oxygen, temperature (wellhead and downwell), methane, and carbon monoxide.
 - (2) Include a summary trend analysis for each well subject to the enhanced monitoring requirements to chart the weekly readings over time for oxygen, wellhead temperature, methane, and weekly or monthly readings over time, as applicable for carbon monoxide.
 - (3) Include the date, time, staff person name, and description of findings for each visual observation for subsurface oxidation event.
- (q) If liquids other than leachate are added in a controlled fashion to the waste mass and the permittee does not comply with the bioreactor requirements in §§ 63.1947, 63.1955(b), and § 63.1982 (a) and (b), the permittee must keep a record of calculations showing that the percent moisture by weight expected in the waste mass to which liquid is added is less than 40 percent. The calculation must consider the waste mass, moisture content of the incoming waste, mass of water added to the waste including leachate recirculation and other liquids addition and precipitation, and the mass of water removed through leachate or other water losses. Moisture level sampling or mass balances calculations can be used. You must document the calculations and the basis of any assumptions. Keep the record of the calculations until you cease liquids addition.

TAPCR 1200-03-16, TAPCR 1200-03-09-.02(11)(e)1(iii), 40 CFR §62.16724(h), 40 CFR §63.1958(b) and (c), 40 CFR §63.1981(h), 40 CFR §63.1961(a), §62.724(l), § 63.1982, 62.16726(c)(1),

Compliance Method: Included with the requirement.

- E5-31.** Each owner or operator required to submit reports following the procedure specified in this Condition must submit reports to the EPA via CEDRI. CEDRI can be accessed through the EPA's CDX. The owner or operator must use the appropriate electronic report in CEDRI for this subpart or an alternate electronic file format consistent with the XML schema listed on the CEDRI website (<https://www.epa.gov/electronic-reporting-air-emissions/compliance-and-emissions-data-reporting-interface->

cedri). Once the spreadsheet template upload/forms for the reports have been available in CEDRI for 90 days, the owner or operator must begin submitting all subsequent reports via CEDRI. The reports must be submitted by the deadlines specified in this subpart, regardless of the method in which the reports are submitted. The NMOC emission rate reports, semi-annual reports, and bioreactor 40-percent moisture reports should be electronically reported as a spreadsheet template upload/form to CEDRI. If the reporting forms specific to this subpart are not available in CEDRI at the time that the reports are due, the owner or operator must submit the reports to the physical address listed in **Condition E2(b)** of this permit.

Compliance Method: Included with the requirement.

TAPCR 1200-03-09-.02(11)(e)1.(iii), 40 CFR §63.1981(l)

E5-32. When calculating emissions for Prevention of Significant Deterioration purposes, the owner or operator of the MSWL must estimate the NMOC emission rate for comparison to the Prevention of Significant Deterioration major source and significance levels in §§ 51.166 or 52.21 of this chapter using Compilation of Air Pollutant Emission Factors, Volume I: Stationary Point and Area Sources (AP-42) or other approved measurement procedures.

Compliance Method: Included with the requirement.

TAPCR 1200-03-07-.07(9), 1200-03-09-.03(8), and 40 CFR 62.16718(c)

END OF PERMIT NUMBER 580562

ATTACHMENT 1

**OPACITY MATRIX DECISION TREE for
VISIBLE EMISSION EVALUATION METHOD 9
DATED SEPTEMBER 11, 2013**

Decision Tree PM for Opacity for Sources Utilizing EPA Method 9*

Notes:

PM = Periodic Monitoring required by 1200-03-09-.02(11)(e)(iii).

This Decision Tree outlines the criteria by which major sources can meet the periodic monitoring and testing requirements of Title V for demonstrating compliance with the visible emission standards set forth in the permit. It is not intended to determine compliance requirements for EPA's Compliance Assurance Monitoring (CAM) Rule (formerly referred to as Enhanced Monitoring – Proposed 40 CFR 64).

Examine each emission unit using this Decision Tree to determine the PM required.*

Use of continuous emission monitoring systems eliminates the need to do any additional periodic monitoring.

Visible Emission Evaluations (VEEs) are to be conducted utilizing EPA Method 9. The observer must be properly certified to conduct valid evaluations.

Typical Pollutants
Particulates, VOC, CO, SO₂, NO_x, HCl, HF, HBr, Ammonia, and Methane.

Initial observations are to be repeated within 90 days of startup of a modified source, if a new construction permit is issued for modification of the source.

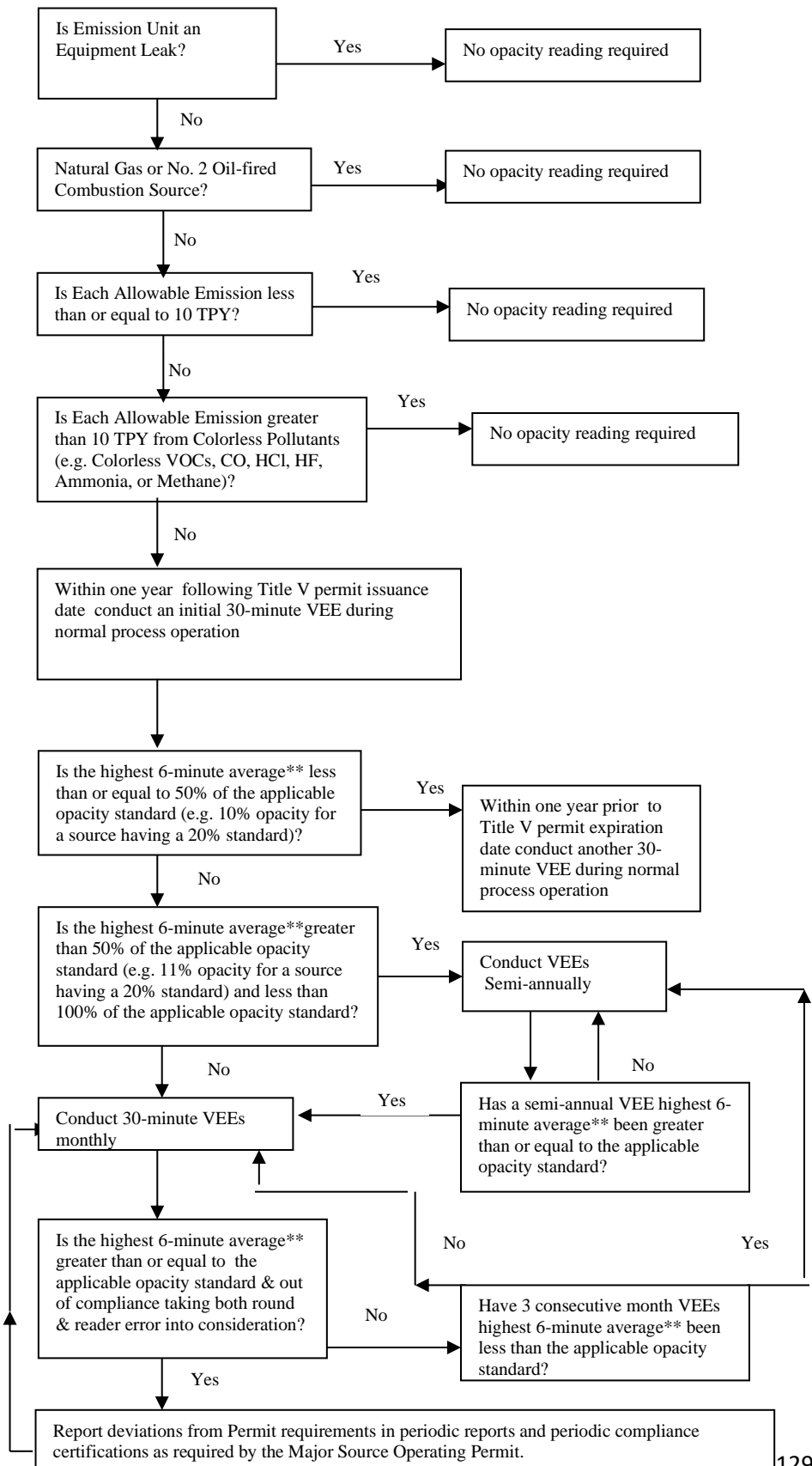
A VEE conducted by TAPCD personnel after the Title V permit is issued will also constitute an initial reading.

Reader Error
EPA Method 9, Non-NSPS or NESHAPS stipulated opacity standards:
The TAPCD guidance is to declare non-compliance when the highest six-minute average** exceeds the standard plus 6.8% opacity (e.g. 26.8% for a 20% standard).

EPA Method 9, NSPS or NESHAPS stipulate opacity standards:
EPA guidance is to allow only engineering round. No allowance for reader error is given.

*Not applicable to Asbestos manufacturing subject to 40 CFR 61.142

**Or second highest six-minute average, if the source has an exemption period stipulated in either the regulations or in the permit.



Dated June 18, 1996
Amended September 11, 2013

ATTACHMENT 2

**Applicable Parts from Code of Federal Regulations,
Title 40, Part 61, Subpart M,
National Emission Standards for Asbestos**

Applicable Parts from
Subpart M—National Emission Standard for Asbestos

Contents

40 CFR §61.140 Applicability.

40 CFR §61.141 Definitions.

Figure 4

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

40 CFR §61.154 Standard for active waste disposal sites.

Authority: 42 U.S.C. 7401, 7412, 7414, 7416, 7601.

Source: 49 FR 13661, Apr. 5, 1984, unless otherwise noted.

40 CFR §61.140 Applicability.

The provisions of this subpart are applicable to those sources specified in 40 CFR §§61.142 through 61.151, 61.154, and 61.155.

[55 FR 48414, Nov. 20, 1990]

40 CFR §61.141 Definitions.

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

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

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

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

Asbestos-containing waste materials means mill tailings or any waste that contains commercial asbestos and is generated by a source subject to the provisions of this subpart. This term includes filters from control devices, friable asbestos waste material, and bags or other similar packaging contaminated with commercial asbestos. As applied to demolition and renovation operations, this term also includes regulated asbestos-containing material waste and materials contaminated with asbestos including disposable equipment and clothing.

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

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

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

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

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

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

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

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

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

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

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

Facility component means any part of a facility including equipment.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Planned renovation operations means a renovation operation, or a number of such operations, in which some RACM will be removed or stripped within a given period of time and that can be predicted. Individual nonscheduled operations are included if a number of such operations can be predicted to occur during a given period of time based on operating experience.

Regulated asbestos-containing material (RACM) means (a) Friable asbestos material, (b) Category I nonfriable ACM that has become friable, (c) Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading, or (d) Category II nonfriable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations regulated by this subpart.

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

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

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

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

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

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

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

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

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

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

[49 FR 13661, Apr. 5, 1984; 49 FR 25453, June 21, 1984, as amended by 55 FR 48414, Nov. 20, 1990; 56 FR 1669, Jan. 16, 1991; 60 FR 31920, June 19, 1995]

Generator	1. Work site name and mailing address		Owner's name	Owner's telephone no.
	2. Operator's name and address			Operator's telephone no.
	3. Waste disposal site (WDS) name, mailing address, and physical site location			WDS phone no.
	4. Name, and address of responsible agency			
Generator	5. Description of materials		6. Containers No. Type	7. Total quantity m ³ (yd ³)
	8. Special handling instructions and additional information			
	9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.			
Transporter	Printed/typed name & title		Signature	Month Day Year
	10. Transporter 1 (Acknowledgment of receipt of materials)			
	Printed/typed name & title		Signature	Month Day Year
	Address and telephone no.			
	11. Transporter 2 (Acknowledgment of receipt of materials)			
Disposal Site	Printed/typed name & title		Signature	Month Day Year
	Address and telephone no.			
	12. Discrepancy indication space			
13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in item 12.				
Printed/typed name & title		Signature	Month Day Year	

(Continued)

Figure 4. Waste Shipment Record

INSTRUCTIONS	
Waste Generator Section (Items 1-9)	
<ol style="list-style-type: none"> Enter the name of the facility at which asbestos waste is generated and the address where the facility is located. In the appropriate spaces, also enter the name of the owner of the facility and the owner's phone number. If a demolition or renovation, enter the name and address of the company and authorized agent responsible for performing the asbestos removal. In the appropriate spaces, also enter the phone number of the operator. Enter the name, address, and physical site location of the waste disposal site (WDS) that will be receiving the asbestos materials. In the appropriate spaces, also enter the phone number of the WDS. Enter "on-site" if the waste will be disposed of on the generator's property. Provide the name and address of the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program. Indicate the types of asbestos waste materials generated. If from a demolition or renovation, indicate the amount of asbestos that is <ul style="list-style-type: none"> - Friable asbestos material - Nonfriable asbestos material Enter the number of containers used to transport the asbestos materials listed in Item 5. Also enter one of the following container codes used in transporting each type of asbestos material (specify any other type of container used if not listed below): <ul style="list-style-type: none"> DM - Metal drums, barrels DP - Plastic drums, barrels BA - 6 mil plastic bags or wrapping Enter the quantities of each type of asbestos material removed in units of cubic meters (cubic yards). Use this space to indicate special transportation, treatment, storage or disposal or Bill of Lading information. If an alternate waste disposal site is designated, note it here. Emergency response telephone numbers or similar information may be included here. The authorized agent of the waste generator must read and then sign and date this certification. The date is the date of receipt by transporter. 	
NOTE: The waste generator must retain a copy of this form.	

(continued)

Figure 4. Waste Shipment Record

Transporter Section (Items 10 & 11)	
<ol style="list-style-type: none"> 10. & 11. Enter name, address, and telephone number of each transporter used, if applicable. Print or type the full name and title of person accepting responsibility and acknowledging receipt of materials as listed on this waste shipment record for transport. Enter date of receipt and signature. 	
NOTE: The transporter must retain a copy of this form.	
Disposal Site Section (Items 12 & 13)	
<ol style="list-style-type: none"> 12. The authorized representative of the WDS must note in this space any discrepancy between waste described on this manifest and waste actually received as well as any improperly enclosed or contained waste. Any rejected materials should be listed and destination of those materials provided. A site that converts asbestos-containing waste material to nonasbestos material is considered a WDS. 13. The signature (by hand) of the authorized WDS agent indicates acceptance and agreement with statements on this manifest except as noted in item 12. The date is the date of signature and receipt of shipment. 	
NOTE: The WDS must retain a completed copy of this form. The WDS must also send a completed copy to the operator listed in item 2.	

Figure 4. Waste Shipment Record

40 CFR §61.154 Standard for active waste disposal sites.

Each owner or operator of an active waste disposal site that receives asbestos-containing waste material from a source covered under 40 CFR §61.149, 61.150, or 61.155 shall meet the requirements of this section:

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

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

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

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

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

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

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

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

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

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

(v) The date of the receipt.

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

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

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

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

(g) Upon closure, comply with all the provisions of 40 CFR §61.151.

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

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

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

(1) Scheduled starting and completion dates.

(2) Reason for disturbing the waste.

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

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

(Secs. 112 and 301(a) of the Clean Air Act as amended (42 U.S.C. 7412, 7601(a))

[49 FR 13661, Apr. 5, 1990. Redesignated and amended at 55 FR 48431, Nov. 20, 1990; 56 FR 1669, Jan. 16, 1991]

ATTACHMENT 3

**Tennessee Air Pollution Control Regulations,
Applicable Parts from Rule 1200-03-11-.02
Hazardous Air Contaminants-Asbestos**

1200-03-11 HAZARDOUS AIR CONTAMINANTS (August, 2011)

APPLICABLE PARTS FROM 1200-03-11-.02 ASBESTOS

The provisions of this rule are applicable to those sources specified in 1200-03-11-.02(2)(a) through (l), 1200-03-11-.02(5) and 1200-03-11-.02(6).

1200-03-11-.02(1) Definitions.

All terms that are used in this rule and are not defined below are given the same meaning as provided in Chapter 1200-03-2 DEFINITIONS.

(a) "Active waste disposal site" means any disposal site other than an inactive site.

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

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

(d) "Asbestos-containing material" (ACM) means asbestos or any asbestos containing material, which contains more than 1 percent asbestos as determined using Polarized Light Microscopy according to the method specified in Appendix A, Subpart F, 40 CFR, Part 763, Section 1, Polarized Light Microscopy, as contained in the 7-1-91 Edition of the CFR.

(e) "Asbestos-containing waste materials" means mill tailings or any waste that contains commercial asbestos and is generated by a source subject to the provisions of this rule. This term includes filters from control devices, friable asbestos waste material, and bags or other similar packaging contaminated with commercial asbestos. As applied to demolition and renovation operations, this term also includes regulated asbestos-containing material waste and materials contaminated with asbestos including disposable equipment and clothing.

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

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

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

(i) "Category I nonfriable ACM" means asbestos-containing packings, gaskets, resilient floor covering, and asphalt roofing products, containing more than 1 percent asbestos as determined using polarized light microscopy according to the method specified in Appendix A, Subpart F, 40 CFR Part 763, section 1, Polarized Light Microscopy, as contained in the 7-1-91 Edition of the CFR.

(j) "Category II nonfriable ACM" means any material, excluding Category I nonfriable ACM, containing more than 1 percent asbestos, as determined using polarized light microscopy according to the methods specified in Appendix A, Subpart F, 40 CFR Part 763, section 1, Polarized Light Microscopy, as contained in the 7-1-91 Edition of the CFR, that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure

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

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

- (m) “Demolition” means the wrecking or taking out of any load-supporting structural member of a facility together with any related handling operations or the intentional burning of any facility.
- (n) “Emergency renovation operation” means a renovation operation that was not planned but results from a sudden, unexpected event that, if not immediately attended to, presents a safety or public health hazard, is necessary to protect equipment from damage, or is necessary to avoid imposing an unreasonable financial burden. This term includes operations necessitated by nonroutine failures of equipment.
- (o) “Fabricating” means any processing (e.g., cutting, sawing, drilling) of a manufactured product that contains commercial asbestos, with the exception of processing at temporary sites (field fabricating) for the construction or restoration of facilities. In the case of friction products, fabricating includes bonding, debonding, grinding, sawing, drilling, or other similar operations performed as part of fabricating.
- (p) “Facility” means any institutional, commercial, public, industrial, or residential structure, installation, or building (including any structure, installation, or building containing condominiums or individual dwelling units operated as a residential cooperative, but excluding residential buildings having four or fewer dwelling units); any ship; and any active or inactive waste disposal site. For purposes of this definition, any building, structure, or installation that contains a loft used as a dwelling is not considered a residential structure, installation, or building. Any structure, installation or building that was previously subject to this rule is not excluded, regardless of its current use or function.
- (q) “Facility component” means any part of a facility including equipment.
- (r) “Friable asbestos material” means any material containing more than 1 percent asbestos as determined using the method specified in Appendix A, Subpart F, 40 CFR Part 763, section 1, Polarized Light Microscopy, as contained in the 7-1-91 Edition of the CFR, that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. If the asbestos content is less than 10 percent as determined by a method other than point counting by polarized light microscopy (PLM), verify the asbestos content by point counting using PLM.
- (s) “Fugitive source” means any source of emissions not controlled by an air pollution control device.
- (t) “Glove bag” means a sealed compartment with attached inner gloves used for the handling of asbestos-containing materials. Properly installed and used, glove bags provide a small work area enclosure typically used for small-scale asbestos stripping operations. Information on glove-bag installation, equipment and supplies, and work practices is contained in the Occupational Safety and Health Administration's (OSHA's) final rule on occupational exposure to asbestos (Appendix G to 29 CFR 1926.58, as contained in the 7-1-91 Edition of the CFR).
- (u) “Grinding” means to reduce to powder or small fragments and includes mechanical chipping or drilling.
- (v) “Inactive waste disposal site” means any disposal site or portion of it where additional asbestos-containing waste material has not been deposited within the past year.
- (w) “In poor condition” means the binding of the material is losing its integrity as indicated by peeling, cracking, or crumbling of the material.
- (x) “Installation” means any building or structure or any group of buildings or structures at a single demolition or renovation site that are under the control of the same owner or operator (or owner or operator under common control).
- (y) “Leak-tight” means that solids or liquids cannot escape or spill out. It also means dust-tight.
- (z) “Malfunction” means any sudden and unavoidable failure of air pollution control equipment or process equipment or of a process to operate in a normal or usual manner so that emissions of asbestos are increased. Failures of equipment shall not be considered malfunctions if they are caused in any way by poor maintenance, careless operation, or any other preventable upset conditions, equipment breakdown, or process failure.

- (aa) "Manufacturing" means the combining of commercial asbestos--or, in the case of woven friction products, the combining of textiles containing commercial asbestos--with any other material(s), including commercial asbestos, and the processing of this combination into a product. Chlorine production is considered a part of manufacturing.
- (bb) "Natural barrier" means a natural object that effectively precludes or deters access. Natural barriers include physical obstacles such as cliffs, lakes or other large bodies of water, deep and wide ravines, and mountains. Remoteness by itself is not a natural barrier.
- (cc) "Nonfriable asbestos material" means any material containing more than 1 percent asbestos by area as determined by the method specified in Appendix A, Subpart F, 40 CFR Part 763 section 1, Polarized Light Microscopy, as contained in the 7-1-91 Edition of the CFR, that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.
- (dd) "Nonscheduled renovation operation" means a renovation operation necessitated by the routine failure of equipment, which is expected to occur within a given period based on past operating experience, but for which an exact date cannot be predicted.
- (ee) "Owner or operator of a demolition or renovation activity" means any person who owns, leases, operates, controls, or supervises the facility being demolished or renovated or any person who owns, leases, operates, controls, or supervises the demolition or renovation operation, or both.
- (ff) "Outside air" means the air outside buildings and structures, including, but not limited to, the air under a bridge or in an open air ferry dock.
- (gg) "Particulate asbestos material" means finely divided particles of asbestos or material containing asbestos.
- (hh) "Planned renovation operations" means a renovation operation, or a number of such operations, in which some RACM will be removed or stripped within a given period of time and that can be predicted. Individual nonscheduled operations are included if a number of such operations can be predicted to occur during a given period of time based on operating experience.
- (ii) "Regulated asbestos containing material (RACM)" means
1. Friable asbestos material,
 2. Category I nonfriable ACM that has become friable,
 3. Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading, or
 4. Category II nonfriable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of the demolition or renovation operations regulated by this rule.
- (jj) "Remove" means to take out RACM or facility components that contain or are covered with RACM from any facility.
- (kk) "Renovation" means altering a facility or one or more facility components in any way, including the stripping or removal of RACM from a facility component. Operations in which load-supporting structural members are wrecked or taken out are demolitions.
- (ll) "Resilient floor covering" means asbestos-containing floor tile, including asphalt and vinyl floor tile, and sheet vinyl floor covering containing more than 1 percent asbestos as determined using polarized light microscopy according to the method specified in Appendix A, Subpart F, 40 CFR Part 763, section 1, Polarized Light Microscopy, as contained in the 7-1-91 Edition of the CFR.
- (mm) "Roadways" means surfaces on which vehicles travel. This term includes public and private highways, roads, streets, parking areas, and driveways.

(nn) “Strip” means to take off RACM from any part of a facility or facility components.

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

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

(qq) “Waste generator” means any owner or operator of a source covered by this rule whose act or process produces asbestos-containing waste material.

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

(ss) “Working day” means Monday through Friday and includes holidays that fall on any of the days Monday through Friday.

The following applies upon receipt of asbestos waste at the landfill:

1200-03-11-.02(5) Standard for active waste disposal sites.

Each owner or operator of an active waste disposal site that receives asbestos-containing waste material from a source covered under 1200-03-11-.02(2)(k), 1200-03-11-.02(2)(j), or 1200-03-11-.02(6) shall meet the requirements of this paragraph:

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

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

1. Be covered with at least 15 centimeters (6 inches) of compacted nonasbestos containing material, or
2. Be covered with a resinous or petroleum-based dust suppression agent that effectively binds dust and controls wind erosion. Such an agent shall be used in the manner and frequency recommended for the particular dust by the dust suppression agent manufacturer to achieve and maintain dust control. Other equally effective dust suppression agents may be used upon prior approval by the Technical Secretary. For purposes of this paragraph, any used, spent, or other waste oil is not considered a dust

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

1. Maintain waste shipment records, using the form shown in Figure 4, and include the following information:
 - (i) The name, address, and telephone number of the waste generator.
 - (ii) The name, address, and telephone number of the transporter(s).
 - (iii) The quantity of the asbestos-containing waste material in cubic meters (cubic yards).

(iv) The presence of improperly enclosed or uncovered waste, or any asbestos-containing waste material not sealed in leak-tight containers. Report in writing to the Technical Secretary by the following working day, the presence of a significant amount of improperly enclosed or uncovered waste. Submit a copy of the waste shipment record along with the report.

(v) The date of receipt.

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

3. Upon discovering a discrepancy between the quantity of waste designated on the waste shipment records and the quantity actually received, attempt to reconcile the discrepancy with the waste generator. If the discrepancy is not resolved within 15 days after receiving the waste, immediately report it in writing to the Technical Secretary. Describe the discrepancy and attempts to reconcile it, and submit a copy of the waste shipment record along with the report.

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

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

(g) Upon closure, comply with all the provisions of 1200-03-11-.02(2)(l).

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

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

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

1. Scheduled starting and completion dates.

2. Reason for disturbing the waste.

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

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

Upon closure of an active waste disposal site for asbestos, the permittee shall comply with 1200-03-11-.02(2) (l). For the purposes of closure of an active waste disposal site, the following will be utilized.

The definition of closure is not contained in 40 CFR 61 Subpart M; however, the following is provided and referenced regarding the closure of a landfill. 40 CFR 60 Subpart WWW defines closure of a landfill. Using that definition, closure for an active waste disposal site for asbestos will be defined as follows:

Closed asbestos-containing waste material disposal site means an asbestos-containing waste material disposal site or portion of it in which asbestos-containing waste material is no longer being placed, and in which no additional asbestos-containing waste materials will be placed without first obtaining a permit as prescribed under 1200-03-11-.01(2)(a). Once a permit has been issued, and additional asbestos-containing waste material is placed in the asbestos-containing waste material disposal site, the asbestos-containing waste material disposal site is no longer closed.

Closure means that point in time when an asbestos-containing waste material disposal site becomes a closed asbestos-containing waste material disposal site.

1200-03-11-.02(2) (l) Standard for inactive waste disposal sites for asbestos mills and manufacturing and fabricating operations.

Each owner or operator of any inactive waste disposal site that was operated by sources covered under 1200-03-11-.02(2)(a), 1200-03-11-.02(2)(c), or 1200-03-11-.02(2)(h) and received deposits of asbestos-containing waste material generated by the sources, shall:

1. Comply with one of the following:

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

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

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

(iv) For inactive waste disposal sites for asbestos tailings, a resinous or petroleum-based dust suppression agent that effectively binds dust to control surface air emissions may be used instead of the methods in subparts 1(i), (ii), and (iii) of this subparagraph. 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 Technical Secretary to use other equally effective dust suppression agents. For purposes of this subparagraph, any used, spent, or other waste oil is not considered a dust suppression agent.

2. Unless a natural barrier adequately deters access by the general public, install and maintain warning signs and fencing as follows, or comply with subparts 1(ii) or 1 (iii) of this subparagraph.

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

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

(II) Conform to the requirements for 51 cm x 36 cm (20" x 14") upright format signs specified in 29 CFR 1910.145(d) (as published in (7-1-91 Edition)) and this subparagraph; and

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

Legend	Notation
--------	----------

Asbestos Waste Disposal Site	2.5 cm (1 inch) Sans Serif, Gothic or Block.
Do Not Create Dust	1.9 cm (3/4 inch) Sans Serif, Gothic or Block.
Breathing Asbestos is Hazardous to Your Health	14 Point Gothic.

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

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

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

3. The owner or operator may use an alternative control method that has received prior approval of the Technical Secretary of the EPA and the Technical Secretary rather than comply with the requirements of parts 1 or 2 of this subparagraph.

4. Notify the Technical Secretary 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 subparagraph, 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 Technical Secretary at least 10 working days before the excavation begins and in no event shall excavation begin earlier than the date specified in the original notification. Include the following information in the notice:

(i) Scheduled starting and completion dates.

(ii) Reason for disturbing the waste.

(iii) 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 Technical Secretary may require changes in the emission control procedures to be used.

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

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

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

(ii) The survey plot and record of the location and quantity of asbestos containing waste disposed of within the disposal site required in 1200-03-11-.02(5)(f) have been filed with the Technical Secretary; and

(iii) The site is subject to 40 CFR 61 Subpart M, as contained in the 7-1-91 Edition of the CFR.



State of Tennessee
 Department of Environment and Conservation
 Division of Air Pollution Control
 William R. Snodgrass Tennessee Tower
 312 Rosa L. Parks Avenue, 15th Floor
 Nashville, TN 37243-1531
 615-532-0554

Asbestos Waste Shipment Record
 (See Completion Instructions on Reverse)

GENERATOR	1. Work site name and mailing address		Owner's name	Owner's telephone no.
	2. Operator's name and address			Operator's telephone no.
	Authorized agent:			
	3. Waste disposal site (WDS) name, mailing address, physical site location:		WDS phone no.	
			Permit No.	
	4. Name and address of responsible agency: Tennessee Department of Environment & Conservation Division of Air Pollution Control William R. Snodgrass Tennessee Tower 312 Rosa L. Parks Avenue, 15 th Floor Nashville, TN 37243-1531			
	5. Description of waste:	6. Containers No. _____ Type _____ (See instructions for type code)	7. Total quantity _____ yd ³ _____ gal	
	8. Special handling instructions and additional information:			
9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.				
Printed/typed name _____ Title _____ Date _____				
TRANSPORTER	10. Transporter # 1 (Acknowledgement of receipt of waste)			
	Printed/typed name _____ Title _____ Date _____			
	Signature _____ Phone (_____) _____ Address _____			
11. Transporter # 2 (Acknowledgement of receipt of waste)				
Printed/typed name _____ Title _____ Date _____				
Signature _____ Phone (_____) _____ Address _____				
DISPOSAL SITE	12. Discrepancy indication space:			
	13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in item 12.			
Printed/typed name _____ Title _____ Date _____				
Signature _____ Phone (_____) _____				

Instructions for Completing Tennessee Asbestos Waste Shipment Record (Form CN-1054)

Waste Generator Section (Items 1-9) NOTE: The waste generator must retain a copy of this form.

1. Enter the name and address of the facility at which asbestos waste is generated. In the appropriate spaces, also enter the name of the owner of the facility and the owner's phone number.
2. If a demolition or renovation, enter the name and address of the company and the **authorized agent** responsible for performing the asbestos removal. In the appropriate space, also enter the phone number of the operator.
3. Enter the name, address, and physical site location of the waste disposal site (WDS) that will be receiving the materials. In the appropriate spaces, also enter the phone number and permit number of the WDS. Enter "on-site" if the waste will be disposed of on the generator's property.
4. Provide the name and address of the local, state, or EPA regional office responsible for administering the asbestos NESHAP program.
5. Indicate the types of asbestos waste materials generated. If from a demolition or renovation, indicate the amount of asbestos that is
 - Friable asbestos material
 - Non-friable asbestos material
6. Enter the number of containers used to transport the asbestos materials listed in item 5. Also enter one of the following container codes used in transporting each type of asbestos material (specify any other type of container used if not listed below):
 - DM** - Metal drums, barrels
 - DP** - Plastic drums, barrels
 - BA** - Plastic bags or wrapping
7. Enter the quantity of each type of asbestos material removed in units of cubic yards (or gallons if drums or barrels are used).
8. Use this space to indicate special transportation, treatment, storage or disposal or Bill of Lading information. If an alternate waste disposal site is designated, note it here. Emergency response telephone numbers or similar information may be included here.
9. The **authorized agent** of the waste generator must read and then sign and date this certification. The date is the date of receipt by transporter.

Transporter Section (Items 10 & 11) NOTE: The transporter must retain a copy of this form.

10. Enter the name, address, and telephone number of transporter used. Print or type the full name and title of person accepting responsibility and acknowledging receipt of materials as listed on this waste shipment record for transport. Enter date of receipt and signature.
11. Enter same information as item 10 requires if more than one transporter is used.

Disposal Site Section (Items 12 & 13)

12. The authorized representative of the WDS must note in this space any discrepancy between waste described on this manifest and waste actually received as well as any improperly enclosed or contained waste. Any rejected materials should be listed and destination of those materials provided. A site that converts asbestos-containing waste material to non-asbestos material is considered a WDS.
13. The signature (by hand) of the authorized WDS agent indicates acceptance and agreement with statements on this manifest except as noted in item 12. The date is the date of signature and receipt of shipment.

NOTE: The WDS must retain a completed copy of this form for at least 2 years. The WDS must also send a completed copy to the operator listed in item 2.

Authority: T.C.A. §§4-5-202 et. seq. and 68-201-105. **Administrative History:** Original rule filed January 10, 1977; effective February 9, 1977. Amendment filed April 17, 1978; effective June 16, 1978. Amendment filed August 21, 1981; effective October 5, 1981. Amendment filed March 5, 1993; effective April 19, 1993. Amendment filed March 10, 1995; effective May 24, 1995. Amendment filed January 31, 1997; effective April 16, 1997. Amendment filed December 22, 1997; March 7, 1998.

ATTACHMENT 4

General Provisions for 40 CFR Part 62 Subpart OOO

You are required to comply with the following General Provisions of the federal Emissions Guidelines for Existing Stationary Sources:

General provisions citation 40 CFR	Subject of citation	Applies to subpart	Explanation
§62.1	Definitions	Yes	
§62.2	Introduction	Yes	
§62.3	Extensions	Yes	
§62.4	Approval status	Yes	
§62.5	Legal authority	Yes	
§62.6	Negative declarations	Yes	
§62.7	Emission standards	Yes	
§62.8	Emission inventories and surveillance	Yes	
§62.9	Revision of plans by Administrator	Yes	
§62.10	Submission to Administrator	Yes	
§62.11	Severability	Yes	
§62.12	Availability of applicable plans	Yes	
§62.13	Federal plans	Yes	

TAPCR 1200-03-09-.03(8)

ATTACHMENT 5

General Provisions for 40 CFR 61 Subpart M

You are required to comply with the following General Provisions of the federal National Emission Standards for Hazardous Air Pollutants (NESHAP):

General Provisions Citation 40 CFR	Subject of Citation	Applies to Subpart	Explanation
61.01	Lists of Pollutants and Applicability of Part 61	Yes	
61.02	Definitions	Yes	
61.03	Units and Abbreviations	Yes	
61.04	Address	Yes	
61.05	Prohibited Activities	Yes	
61.06	Determination of Construction or Modification	Yes	
61.08	Approval of Construction or Modification	Yes	
61.09	Notification of Startup	Yes	
61.10	Source Reporting and Waiver Request	Yes	
61.11	Waiver of Compliance	Yes	
61.12	Compliance with Standards and Maintenance Requirements	Yes	
61.13	Emission Tests and Waiver of Emission Tests	Yes	
61.14	Monitoring Requirements	Yes	
61.15	Modification	Yes	
61.16	Availability of Information	Yes	
61.17	State Authority	Yes	
61.18	Incorporations by Reference	Yes	
61.19	Circumvention	Yes	

TAPCR 1200-03-09-.03(8)

ATTACHMENT 6

TITLE V FEE SELECTION



TITLE V FEE SELECTION

Type or print and submit to the email address above.

FACILITY INFORMATION

1. Organization's legal name and SOS control number [as registered with the TN Secretary of State (SOS)]	
2. Site name (if different from legal name)	
3. Site address (St./Rd./Hwy.)	County name
City	Zip code
4. Emission source reference number	5. Title V permit number

FEE SELECTION

This fee selection is effective beginning January 1, _____. When approved, this selection will be effective until a new Fee Selection form is submitted. Fee Selection forms must be submitted on or before December 31 of the annual accounting period.

6. Payment Schedule (choose one):

Calendar Year Basis (January 1 – December 31)

Fiscal Year Basis (July 1 – June 30)

7. Payment Basis (choose one):

Actual Emissions Basis Allowable Emissions Basis Combination of Actual and Allowable Emissions Basis

8. If Payment Basis is "Actual Emissions" or "Combination of Actual and Allowable Emissions", complete the following table for each permitted source and each pollutant for which fees are due for that source. See instructions for further details.

Source ID	Pollutant	Allowable or Actual Emissions	If allowable emissions: Specify condition number and limit.
			If actual emissions: Describe calculation method and provide example. Provide condition number that specifies method, if applicable.

8. (Continued)

Source ID	Pollutant	Allowable or Actual Emissions	If allowable emissions: Specify condition number and limit.
			If actual emissions: Describe calculation method and provide example. Provide condition number that specifies method, if applicable.

CONTACT INFORMATION (BILLING)

9. Billing contact			Phone number with area code
Mailing address (St./Rd./Hwy.)			Fax number with area code
City	State	Zip code	Email address

SIGNATURE BY RESPONSIBLE OFFICIAL

Based upon information and belief formed after reasonable inquiry, I, as the responsible person of the above mentioned facility, certify that the information contained in the submittal is accurate and true to the best of my knowledge. As specified in TCA Section 39-16-702(a)(4), this declaration is made under penalty of perjury.

10. Signature	Date
----------------------	------

ATTACHMENT 7

**Table 1 to Subpart 000 of Part 62
Generic Compliance Schedule and Increments of Progress**

Increment	Date if using tiers 1, 2, or 3	Date if using tier 4	Date if a legacy controlled landfill
Increment 1 - Submit cover page of final control plan	1 year after initial NMOC emission rate report or the first annual emission rate report showing NMOC emissions ≥ 34 megagrams per year. ¹	1 year after the first measured concentration of methane of 500 parts per million or greater from the surface of the landfill	1 year after the first NMOC emission rate report or the first annual emission rate report showing NMOC emissions ≥ 50 megagrams per year submitted under a previous regulation. ²
Increment 2 - Award Contracts	20 months after initial NMOC emission rate report or the first annual emission rate report showing NMOC emissions ≥ 34 megagrams per year. ¹	20 months after the most recent NMOC emission rate report showing NMOC emissions ≥ 34 megagrams per year	20 months after the most recent NMOC emission rate report showing NMOC emissions ≥ 50 megagrams per year submitted under a previous regulation. ²
Increment 3 - Begin on-site construction	24 months after initial NMOC emission rate report or the first annual emission rate report showing NMOC emissions ≥ 34 megagrams per year. ¹	24 months after the most recent NMOC emission rate report showing NMOC emissions ≥ 34 megagrams per year	24 months after the most recent NMOC emission rate report showing NMOC emissions ≥ 50 megagrams per year submitted under a previous regulation. ²
Increment 4 - Complete on-site construction	30 months after initial NMOC emission rate report or the first annual emission rate report showing NMOC emissions ≥ 34 megagrams per year. ¹	30 months after the most recent NMOC emission rate report showing NMOC emissions ≥ 34 megagrams per year	30 months after the first NMOC emission rate report or the first annual emission rate report showing NMOC emissions ≥ 50 megagrams submitted under a previous regulation.
Increment 5 - Final compliance	30 months after initial NMOC emission rate report or the first annual emission rate report showing NMOC emissions ≥ 34 megagrams per year. ¹	30 months after the most recent NMOC emission rate report showing NMOC emissions ≥ 34 megagrams per year	30 months after the first NMOC emission rate report or the first annual emission rate report showing NMOC emissions ≥ 50 megagrams submitted under a previous regulation. ²

¹ 50 megagrams per year NMOC for the closed landfill subcategory.

² Previous regulation refers to 40 CFR part 60, subpart WWW; 40 CFR part 62, subpart GGG; or a state plan implementing 40 CFR part 60, subpart Cc. Increments of progress that have already been completed under previous regulations do not have to be completed again under this subpart.

ATTACHMENT 8

Applicability of NESHAP General Provisions to Subpart AAAA

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

Citation	Description	Before September 28, 2021	No later than September 27, 2021	Explanation
§63.1(a)	Applicability: General applicability of NESHAP in this part	Yes	Yes	
§63.1(b)	Applicability determination for stationary sources	Yes	Yes	
§63.1(c)	Applicability after a standard has been set	No ¹	Yes	
§63.1(e)	Applicability of permit program before relevant standard is set	Yes	Yes	
§63.2	Definitions	Yes	Yes	
§63.3	Units and abbreviations	No ¹	Yes	
§63.4	Prohibited activities and circumvention	Yes	Yes	
§63.5(a)	Construction/reconstruction	No ¹	Yes	
§63.5(b)	Requirements for existing, newly constructed, and reconstructed sources	Yes	Yes	
§63.5(d)	Application for approval of construction or reconstruction	No ¹	Yes	
§63.5(e) and (f)	Approval of construction and reconstruction	No ¹	Yes	
§63.6(a)	Compliance with standards and maintenance requirements—applicability	No ¹	Yes	
§63.6(b) and (c)	Compliance dates for new, reconstructed, and existing sources	No ¹	Yes	
§63.6(e)(1)(i)-(ii)	Operation and maintenance requirements	Yes	No	See §63.1955(c) for general duty requirements.
63.6(e)(3)(i)-(ix)	SSM plan	Yes	No	
63.6(f)(1)	Exemption of nonopacity emission standards during SSM	Yes	No	
§63.6(f)(2) and (3)	Compliance with nonopacity emission standards	Yes	Yes	

§63.6(g)	Use of an alternative nonopacity standard	No ¹	Yes	
§63.6(h)	Compliance with opacity and visible emission standards	No ¹	No	Subpart AAAA does not prescribe opacity or visible emission standards.
§63.6(i)	Extension of compliance with emission standards	No ¹	Yes	
§63.6(j)	Exemption from compliance with emission standards	No ¹	Yes	
§63.7	Performance testing	No ¹	Yes	
§63.7(e)(1)	Conditions for performing performance tests	No ¹	No	40 CFR 63.1959(f) specifies the conditions for performing performance tests.
§63.8(a) and (b)	Monitoring requirements— Applicability and conduct of monitoring	No ¹	Yes	
§63.8(c)(1)	Operation and Maintenance of continuous emissions monitoring system	No ¹	Yes	
§63.8(c)(1)(i)	Operation and Maintenance Requirements	No ¹	No	Unnecessary due to the requirements of §63.8(c)(1) and the requirements for a quality control plan for monitoring equipment in §63.8(d)(2).
§63.8(c)(1)(ii)	Operation and Maintenance Requirements	No ¹	No	
§63.8(c)(1)(iii)	SSM plan for monitors	No ¹	No	
§63.8(c)(2)-(8)	Monitoring requirements	No ¹	Yes	
§63.8(d)(1)	Quality control for monitors	No ¹	Yes	
§63.8(d)(2)	Quality control for monitors	No ¹	Yes	
§63.8(d)(3)	Quality control records	No ¹	No	See §63.1983(c)(8).
§63.9(a), (c), and (d)	Notifications	No ¹	Yes	
§63.9(b)	Initial notifications	No ¹	Yes ²	
§63.9(e)	Notification of performance test	No ¹	Yes ²	
§63.9(f)	Notification of visible emissions/opacity test	No ¹	No	Subpart AAAA does not prescribe opacity or visible emission standards.
§63.9(g)	Notification when using CMS	No ¹	Yes ²	
§63.9(h)	Notification of compliance status	No ¹	Yes ²	
§63.9(i)	Adjustment of submittal deadlines	No ¹	Yes	
§63.9(j)	Change in information already provided	No ¹	Yes	

§63.10(a)	Recordkeeping and reporting—general	No ¹	Yes	
§63.10(b)(1)	General recordkeeping	No ¹	Yes	
§63.10(b)(2)(i)	Startup and shutdown records	Yes	No	See §63.1983(c)(6) for recordkeeping for periods of startup and shutdown.
§63.10(b)(2)(ii)	Recordkeeping of failures to meet a standard	Yes	No	See §63.1983(c)(6)-(7) for recordkeeping for any exceedance of a standard.
§63.10(b)(2)(iii)	Recordkeeping of maintenance on air pollution control equipment	Yes	Yes	
§63.10(b)(2)(iv)-(v)	Actions taken to minimize emissions during SSM	Yes	No	See §63.1983(c)(7) for recordkeeping of corrective actions to restore compliance.
§63.10(b)(vi)	Recordkeeping for CMS malfunctions	No ¹	Yes	
§63.10(b)(vii)-(xiv)	Other Recordkeeping of compliance measurements	No ¹	Yes	
§63.10(c)	Additional recordkeeping for sources with CMS	No ¹	No	See §63.1983 for required CMS recordkeeping.
§63.10(d)(1)	General reporting	No ¹	Yes	
§63.10(d)(2)	Reporting of performance test results	No ¹	Yes	
§63.10(d)(3)	Reporting of visible emission observations	No ¹	Yes	
§63.10(d)(4)	Progress reports for compliance date extensions	No ¹	Yes	
§63.10(d)(5)	SSM reporting	Yes	No	All exceedances must be reported in the semi-annual report required by §63.1981(h).
§63.10(e)	Additional reporting for CMS systems	No ¹	Yes	
§63.10(f)	Recordkeeping/reporting waiver	No ¹	Yes	
§63.11	Control device requirements/flares	No ¹	Yes	§60.18 is required before September 27, 2021. However, §60.18 and 63.11 are equivalent.
§63.12(a)	State authority	Yes	Yes	
§63.12(b)-(c)	State delegations	No ¹	Yes	
§63.13	Addresses	No ¹	Yes	
§63.14	Incorporation by reference	No ¹	Yes	
§63.15	Availability of information and confidentiality	Yes	Yes	

¹Before September 28, 2021, this subpart requires affected facilities to follow 40 CFR part 60, subpart WWW, which incorporates the General Provisions of 40 CFR part 60.

ATTACHMENT 9

ALTERNATIVE CO TEST METHODS



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
RESEARCH TRIANGLE PARK, NC 27711

OFFICE OF
AIR QUALITY PLANNING
AND STANDARDS

Solid Waste Working Group
c/o Matthew W. Morrison
Pillsbury Winthrop Shaw Pittman LLP
1200 Seventeenth Street NW
Washington, DC 20036-3006

10/06/2021

Dear Mr. Morrison:

I am writing in response to the letter from the National Waste & Recycling Association, the Solid Waste Association of North America, Waste Management, and Republic Services (collectively, the Solid Waste Working Group or SWWG) requesting approval of an alternative test method. The original letter was submitted on July 24, 2020, and the final version was submitted on August 30, 2021. In that letter, the SWWG, on behalf of their member organizations, seek the use of an alternative test method in lieu of a requirement found in 40 CFR 63, Subpart AAAA - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills Residual Risk and Technology Review (Subpart AAAA).

Subpart AAAA, §63.1961(a)(5) states that when a facility seeks to demonstrate compliance with the operational standard for temperature found in §63.1958(c)(1), the facility must initiate enhanced monitoring at each well with a landfill gas temperature greater than 62.8 degrees Celsius (145 degrees Fahrenheit). That enhanced monitoring includes, among other things, measuring the carbon monoxide concentrations using Method 10 (40 CFR 60, Appendix A), as specified by §63.1961(a)(5)(vi). In lieu of Method 10, you propose the use of the alternative method included as an attachment to this letter. The original alternative method was developed by the SWWG, and the work group members conferred with EPA staff to develop the attached final version. You state that if the candidate method is approved, it would not impact the stringency of the final rule, nor impede EPA's policy of ensuring compliance with environmental and safety standards at municipal solid waste landfills.

We have reviewed your original submittal and the attached final version of the method in detail and based on that review, we are approving your alternative test method request to allow the use of the test method included as an attachment to this letter in lieu of Method 10, as specified by §63.1961(a)(5)(vi) of Subpart AAAA. We agree that the alternative method will be adequate for measurement of carbon monoxide from the wellheads and will not impact the stringency of Subpart AAAA. We also find it reasonable that this alternative test method approval be broadly applicable to facilities subject to Subpart AAAA including the requirements of §63.1961(a)(5)(vi), which specify the use of Method 10 and, for that reason, we will post this letter as ALT-143 on our website at <http://www3.epa.gov/tm/emc/approalt.html> for use by facilities subject to those requirements.

This alternative test method approval is applicable to demonstrate compliance with the requirements of §63.1961(a)(5)(vi) of Subpart AAAAA. This approval does not address the use of this alternative method for performance testing required under State Implementation Plans (SIP) or state/local/tribal regulations. Application of this alternative test method for such regulations is subject to the approval of the administrative authority for the applicable regulation(s).

If you should have any questions or require further information regarding this approval, please call Kim Garnett of my staff at 919-541-1158 or email her at garnett.kim@epa.gov.

Sincerely,

Johnson,
Steffan
Steffan M Johnson
Steffan M. Johnson, Group Leader
Measurement Technology Group

Digitally signed by
Johnson, Steffan
Date: 2021.10.06
08:08:40 -04'00'

cc: Amy Banister, Waste Management
Jason DeWees, EPA/OAQPS/SPPD
Robin Dunkins, EPA/OAQPS/SPPD
Kim Garnett, EPA/OAQPS/AQAD
Anne Germain, National Waste and Recycling Association
Michael Jensen, Waste Management
Lula Melton, EPA/OAQPS/AQAD
Andrew Sheppard, EPA/OAQPS/SPPD
Nikki Wuestenberg, Republic Services
EPA Regional Testing Contacts



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
RESEARCH TRIANGLE PARK, NC 27711

OFFICE OF
AIR QUALITY PLANNING
AND STANDARDS

Solid Waste Working Group
c/o Matthew W. Morrison
Pillsbury Winthrop Shaw Pittman LLP
1200 Seventeenth Street NW
Washington, DC 20036-3006

10/06/2021

Dear Mr. Morrison:

I am writing in response to the letter from the National Waste & Recycling Association, the Solid Waste Association of North America, Waste Management, and Republic Services (collectively, the Solid Waste Working Group or SWWG) requesting approval of an alternative test method. The original request was submitted on May 28, 2021, and the final version was submitted on September 27, 2021. In that letter, the SWWG, on behalf of their member organizations, seek the use of an alternative test method in lieu of a requirement found in 40 CFR 63, Subpart AAAA - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills Residual Risk and Technology Review (Subpart AAAA).

Subpart AAAA, §63.1961(a)(5) states that when a facility seeks to demonstrate compliance with the operational standard for temperature found in §63.1958(c)(1), the facility must initiate enhanced monitoring at each wellhead with a landfill gas temperature greater than 62.8 degrees Celsius (145 degrees Fahrenheit). That enhanced monitoring includes, among other things, measuring the carbon monoxide concentrations using Method 10 (40 CFR 60, Appendix A), as specified by §63.1961(a)(5)(vi). In lieu of Method 10, you propose the use of an alternative method where landfill gas samples are collected in passivated canisters or sampling bags from each wellhead subject to enhanced monitoring through existing monitoring ports and the samples are analyzed using an instrument that employs gas chromatography (GC) to separate CO from a sample and then catalytically reduce the CO to methane that is passed by a Flame Ionization Detector (FID) for quantification. A copy of your alternative method is included as an attachment to this letter. The original alternative method was developed by the SWWG, and the work group members conferred with EPA staff to develop the attached final version.

We have reviewed your original submittal and the attached final version of the method in detail and based on that review, we are approving your alternative test method request to allow the use of the test method included as an attachment to this letter in lieu of Method 10, as specified by §63.1961(a)(5)(vi) of Subpart AAAA. We believe this alternative method will be adequate for measurement of carbon monoxide from the wellheads and will not impact the stringency of Subpart AAAA. We also find it reasonable that this alternative test method approval be broadly applicable to facilities subject to Subpart AAAA including the requirements of §63.1961(a)(5)(vi), which specify the use of Method 10 and, for that reason, we will post this

letter as ALT-144 on our website at <http://www3.epa.gov/ttn/emc/approalt.html> for use by facilities subject to those requirements.

This alternative test method approval is applicable to demonstrate compliance with the requirements of §63.1961(a)(5)(vi) of Subpart AAAA. This approval does not address the use of this alternative method for performance testing required under State Implementation Plans (SIP) or state/local/tribal regulations. Application of this alternative test method for such regulations is subject to the approval of the administrative authority for the applicable regulation(s).

If you should have any questions or require further information regarding this approval, please call Kim Garnett of my staff at 919-541-1158 or email her at garnett.kim@epa.gov.

Sincerely,


Steffan M. Johnson, Group Leader
Measurement Technology Group

Johnson, Steffan

Digitally signed by
Johnson, Steffan
Date: 2021.10.06
08:04:09 -04'00'

attachment

cc: Amy Banister, Waste Management
Jason DeWees, EPA/OAQPS/SPPD
Robin Dunkins, EPA/OAQPS/SPPD
Kim Garnett, EPA/OAQPS/AQAD
Anne Germain, National Waste and Recycling Association
Michael Jensen, Waste Management
Lula Melton, EPA/OAQPS/AQAD
Andrew Sheppard, EPA/OAQPS/SPPD
Nikki Wuestenberg, Republic Services
EPA Regional Testing Contacts



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
RESEARCH TRIANGLE PARK, NC 27711

OFFICE OF
AIR QUALITY PLANNING
AND STANDARDS

Solid Waste Working Group
c/o Matthew W. Morrison
Pillsbury Winthrop Shaw Pittman LLP
1200 Seventeenth Street NW
Washington, DC 20036-3006

10/06/2021

Dear Mr. Morrison:

I am writing in response to the letter from the National Waste & Recycling Association, the Solid Waste Association of North America, Waste Management, and Republic Services (collectively, the Solid Waste Working Group or SWWG) requesting approval of an alternative test method. The original request was submitted on May 28, 2021, and the final version was submitted on September 27, 2021. In that letter, the SWWG, on behalf of their member organizations, seek the use of an alternative test method in lieu of a requirement found in 40 CFR 63, Subpart AAAAA - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills Residual Risk and Technology Review (Subpart AAAAA).

Subpart AAAAA, §63.1961(a)(5) states that when a facility seeks to demonstrate compliance with the operational standard for temperature found in §63.1958(c)(1), the facility must initiate enhanced monitoring at each well with a landfill gas temperature greater than 62.8 degrees Celsius (145 degrees Fahrenheit). That enhanced monitoring includes, among other things, measuring the carbon monoxide concentrations using Method 10 (40 CFR 60, Appendix A), as specified by §63.1961(a)(5)(vi). In lieu of Method 10, you propose the use of an alternative method where gas samples are collected in passivated canisters or gas sampling bags from each wellhead subject to enhanced monitoring through existing monitoring ports and the samples are then analyzed by an instrument that measures the concentration of CO using gas chromatography (GC) to separate the CO from the sample with a thermal conductivity detector (TCD) for quantification. A copy of your alternative method is included as an attachment to this letter. The original alternative method was developed by the SWWG, and the work group members conferred with EPA staff to develop the attached final version.

We have reviewed your original submittal and the attached final version of the method in detail and based on that review, we are approving your alternative test method request to allow the use of the test method included as an attachment to this letter in lieu of Method 10, as specified by §63.1961(a)(5)(vi) of Subpart AAAAA. We believe this alternative method will be adequate for measurement of carbon monoxide from the wellheads and will not impact the stringency of Subpart AAAAA. We also find it reasonable that this alternative test method approval be broadly applicable to facilities subject to Subpart AAAAA including the requirements of §63.1961(a)(5)(vi), which specify the use of Method 10 and, for that reason, we will post this

letter as ALT-145 on our website at <http://www3.epa.gov/ttn/emc/approalt.html> for use by facilities subject to those requirements.

This alternative test method approval is applicable to demonstrate compliance with the requirements of §63.1961(a)(5)(vi) of Subpart AAAAA. This approval does not address the use of this alternative method for performance testing required under State Implementation Plans (SIP) or state/local/tribal regulations. Application of this alternative test method for such regulations is subject to the approval of the administrative authority for the applicable regulation(s).

If you should have any questions or require further information regarding this approval, please call Kim Garnett of my staff at 919-541-1158 or email her at garnett.kim@epa.gov.

Sincerely,

Johnson,
Steffan M. Johnson Steffan
Steffan M. Johnson, Group Leader
Measurement Technology Group

Digitally signed by Johnson,
Steffan
Date: 2021.10.06 08:05:43 -0400

attachment

cc: Amy Banister, Waste Management
Jason DeWees, EPA/OAQPS/SPPD
Robin Dunkins, EPA/OAQPS/SPPD
Kim Garnett, EPA/OAQPS/AQAD
Anne Germain, National Waste and Recycling Association
Michael Jensen, Waste Management
Lula Melton, EPA/OAQPS/AQAD
Andrew Sheppard, EPA/OAQPS/SPPD
Nikki Wuestenberg, Republic Services
EPA Regional Testing Contacts