09/03/2026

No	TOXIC REVIEW
Yes	PSD
Yes	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
Yes	MACT/GACT
Yes	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED
No	MAJOR GHG
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

Ms. Sharon Frank
GSF ENERGY, LLC
5313 Campbells Run Road, Suite 200
Pittsburgh, PA 15205

RE: DRAFT AIR POLLUTION PERMIT-TO-INSTALL

Facility ID: 1431093220
Permit Number: P0140288
Permit Type: Administrative Modification
County: Hamilton

Dear Permit Holder:

A draft of the Ohio Administrative Code (OAC) Chapter 3745-31 Air Pollution Permit-to-Install for the referenced facility has been issued for the emissions unit(s) listed in the Authorization section of the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the permit. A public notice will appear in the Ohio Environmental Protection Agency (Ohio EPA) ***Weekly Review and Public Notices*** website. A copy of the public notice and the draft permit are enclosed. This permit can be accessed electronically on the Ohio EPA document search webpage: ***eDocument Search***. Comments will be accepted as a marked-up copy of the draft permit or in narrative format. Any comments must be sent to the following:

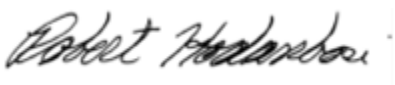
Andrea Moore
Permitting Section
Ohio EPA, DAPC
50 West Town Street, Suite 700
P.O. Box 1049
Columbus, Ohio 43216-1049

and

Southwest Ohio Air Quality Agency
1701 Patricia McCollum Way
DEPT 56
Cincinnati, OH 45237

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published on the Ohio EPA ***Weekly Review and Public Notices*** website. You will be notified in writing if a public hearing is scheduled. A decision on issuing a final permit-to-install will be made after consideration of comments received and oral testimony if a public hearing is conducted. Any permit fee that will be due upon issuance of a final Permit-to-Install is indicated in the Authorization section. Please do not submit any payment now. If you have any questions, please contact Southwest Ohio Air Quality Agency at (513)946-7777.

Sincerely,



Robert Hodanbosi
Chief, Division of Air Pollution Control

cc: U.S. EPA Region 5 - *Via E-Mail Notification*
SWOAQA; Indiana; Kentucky

PUBLIC NOTICE

The following matters are the subject of this public notice by the Ohio Environmental Protection Agency. The complete public notice, including any additional instructions for submitting comments, requesting information, a public hearing, or filing an appeal may be obtained at: ***Weekly Review and Public Notices | Ohio Environmental Protection Agency*** or Hearing Clerk, Ohio EPA, 50 W. Town St., Columbus, Ohio 43215. Ph: 614-644-3037 email: ***HClerk@epa.ohio.gov***

Draft Air Pollution Permit-to-Install Administrative Modification

GSF ENERGY, LLC
10795 Hughes Rd
Cincinnati, OH 45247

ID#: P0140288
Date of Action: 09/03/2026
Permit Desc: Admin mods to PTI P0125062 for Gas Plant #3 (P003) and Landfill Flare System (P004), and PTI P0131025 for Gas Plant #1 (P001) and Gas Plant #2 (P002), to include a new facility-wide restriction on landfill gas throughput that limits emissions of CO in order to avoid PSD requirements.

The permit and complete instructions for requesting information or submitting comments may be obtained at: https://ohioepa.commentinput.com - Search by entering the permit #P0140288 in the "Search Projects" search box.

Permit Strategy Write-Up

1. Check all that apply:

   ☒ Synthetic Minor Determination

   ☐ Netting Determination

2. Source Description:

   GSF Energy consists of the gas recovery plants (P001, P002, and P003) and flare system (P004) that processes the landfill gas (LFG) generated by Rumpke Sanitary Landfill (RSL). The gas plants recover methane from the LFG and then deliver it to the sales line. Collected LFG is compressed then sent to a sulfur treating system where H2S is removed. Once the H2S is removed, the gas is further refined to remove water vapor, non-methane organic compounds (NMOC's), CO2 and siloxanes. Sales gas that contains 98% methane (CH4) is sent to the sales line while gas containing NMOC's and siloxanes are combined with CO2 and fuel gas are sent to a thermal oxidizer for 98% destruction of NMOC's before venting to the atmosphere.

   Each gas plant has a thermal oxidizer for a control device in order to comply with New Source Performance Standards (NSPS); P001/Gas Plant #1 is controlled by TOX5, P002/Gas Plant #2 is controlled by TOX6, and P003/Gas Plant #3 is controlled by TOX3. Off-spec gas (OSG) is sent to an OSG combustor which is not considered an NSPS control device. P001 and P002 share an OSG combustor (Flare 1) and P003 has its own (Flare 3). The utility flare system (P004) consists of two utility flares (Parnell Utility Flare 1 & LFG Utility Flare 2) which are used to control LFG that is not sent to the gas plants for recovery. LFG will be sent to P004 when there are issues with the gas plants or if the is LFG of poor quality and cannot be recovered.

   The purpose of this admin mod to PTI P0125062 for EUs P003 & P004 is to incorporate terms and conditions to cover the period while GSF Energy installs a new gas plant (P005) and removes P001, P002, and P003 from service. P005 will have an associated new thermal oxidizer (TOX4) and OFG flare (Flare 4), and the landfill flare system (P004) will be modified to only contain one utility flare (Parnell Utility Flare 1).

3. Facility Emissions and Attainment Status:

   GSF Energy has the potential to emit emissions of NMOC, CO, PE, PM10, PM2.5, NOx, SO2, hydrogen chloride (HCl), hydrogen fluoride (HF), fluorotrichloromethane (CFC-11), dichlorodifluoromethane (CFC-12), and methane. P003 and P004 have associated PSD limitations for emissions of CO, PM10, NOx, CFC-11, and CFC-12. P001 & P002 have combined annual emissions limitations and no associated PSD limitations.

   PTE of 417.91 TPY for CO emissions was based on P001 – P004's combined gas flow rate capacity (~20,000 scfm max. inlet flow rate combined) and triggered PSD in PTI P0125062. An associated operational restriction was included to limit the combined gas throughput of P001 – P004 to 10,783,603,800 standard cubic feet (scf) based upon a rolling 12-month summation.

   After the installation of the new gas plant (P005) and the removal of Flare 3 and Utility Flare 2 (P004), the maximum gas flow rate to P005 will be 11,00 scfm and 5,000 scfm to P004 (Parnell Utility Flare 1). Based on the projected modified maximum flow rate of 16,000 scfm, the facility-wide PTE for CO is under the PSD threshold of 250 TPY at 154 TPY. To avoid PSD requirements for CO emissions while GSF Energy is installing P005 and still operating P001 – P004, the facility is requesting a facility-wide federally enforceable synthetic minor limit to restrict CO emissions to below the PSD threshold. Historically, the facility-wide annual average LFG flow rate

has been below 8,000 scfm/year since 2020, which is below the projected modified maximum flow rate of 16,000 scfm.

GSF Energy is located in Hamilton County, Ohio. As of 6/30/2026, Hamilton County is in attainment with the NAAQS standards for: CO, Pb, NO2, PM10, PM2.5 (2012 standard), and SO2. Hamilton County is considered an attainment maintenance area for the 8-hour ozone 2015 standard.

4. Source Emissions:

There are no new emissions units being installed nor will there be any emission rate increases as a result of this administrative modification. To ensure GSF Energy does not exceed the CO PSD threshold, a facility-wide annual gas throughput limitation of 8,410,000,000 scf/year, ***based on*** the maximum gas flow rate to future emissions unit P005 and future modified P004 (16,000 scfm), will be included in this administrative modification.

5. Conclusion:

GSF Energy's compliance with the facility-wide gas throughput limitation effectively limits facility-wide CO emissions to below the PSD threshold. The facility-wide gas throughput limitation also ensures compliance with preexisting emissions limitations due to being more stringent than the throughput restriction established under BAT in PTI P0125062. The initial installation PTI for the new gas plant, P005, will not be processed until the issuance of this administrative modification to account for the transitional facility-wide CO limitation. Permit approval is recommended.

6. Please provide additional notes or comments as necessary:

None

7. Total Permit Allowable Emissions Summary (for informational purposes only):

Pollutant	Tons Per Year
PE	53.76
PM_{10}	53.76
$PM_{2.5}$	53.76
NMOC	51.44
CO	240.0
Methane	2,162
SO_2	36.41
NOx	145.73
HCl	70.8
HF	10.56
CFC-11	0.02
CFC-12	0.37

Ohio Environmental Protection Agency

DRAFT

Division of Air Pollution Control
Permit-to-Install
for
GSF ENERGY, LLC

Facility ID:	1431093220
Permit Number:	P0140288
Permit Type:	Administrative Modification
Issued:	09/03/2026
Effective:	To be entered upon final issuance

Ohio Environmental Protection Agency

Division of Air Pollution Control

Permit-to-Install

for

GSF ENERGY, LLC

Table of Contents

Authorization

Facility ID:	1431093220
Facility Description:	Landfill Gas Recovery Processing Facility
Application Number(s):	M0008647, M0008644
Permit Number:	P0140288
Permit Type:	Permit-To-Install
Permit Fee:	$2,625.00 *DO NOT send payment at this time, subject to change before final issuance*
Issue Date:	09/03/2026
Effective Date:	To be entered upon final issuance

This document constitutes issuance of a Permit-to-Install for the emissions unit(s) identified on the following page to:

GSF ENERGY, LLC
10795 Hughes Rd
Cincinnati, OH 45247

Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Southwest Ohio Air Quality Agency
1701 Patricia McCollum Way
DEPT 56
Cincinnati, OH 45237
(513)946-7777

The above-named entity is hereby granted this Permit-to-Install for the air contaminant source(s) (emissions unit(s)) listed in this section pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the described emissions unit(s) will operate in compliance with applicable State and Federal laws and regulations and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

John Logue
Director

Authorization (continued)

Permit Number: P0140288

Permit Description: Admin mods to PTI P0125062 for Gas Plant #3 (P003) and Landfill Flare System (P004), and PTI P0131025 for Gas Plant #1 (P001) and Gas Plant #2 (P002), to include a new facility-wide restriction on landfill gas throughput that limits emissions of CO in order to avoid PSD requirements.

Permits for the following Emissions Unit(s) or groups of Emissions Units are in this document as indicated below:

Emissions Unit ID:	**P003**
Company Equipment ID:	LFG Plant #3
Superseded Permit Number:	P0125062
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P004**
Company Equipment ID:	LFG Collection System
Superseded Permit Number:	P0125062
General Permit Category and Type:	Not Applicable

Group Name:Gas Recovery Plants #1 and #2

Emissions Unit ID:	**P001**
Company Equipment ID:	LFG Plant #1
Superseded Permit Number:	P0131025
General Permit Category and Type:	Not Applicable P0131025
Emissions Unit ID:	**P002**
Company Equipment ID:	LFG Plant #2
Superseded Permit Number:	P0131025
General Permit Category and Type:	Not Applicable P0131025

List of Commonly Used Abbreviations

AP-42 = U.S. EPA's Compilation of Air Pollution Emissions Factors	HVLP = high volume, low pressure	PER = Permit Evaluation Report
ASTM = American Society for Testing and Materials	LAER = lowest achievable emission rate	PM = particulate matter
BACT = Best Available Control Technology	lb(s)/hr = pound(s) per hour	PM_{10} = particulate matter with an aerodynamic diameter less than or equal to 10 microns
BAT = Best Available Technology	LDAR = leak detection and repair	$PM_{2.5}$ = particulate matter with an aerodynamic diameter less than or equal to 2.5 microns
CAA = Clean Air Act	LPG = liquefied petroleum gas/propane	ppb = parts per billion
CAM = compliance assurance monitoring	MACT = maximum achievable control technology	ppm = parts per million
CEMS = continuous emissions monitoring system	MAGLC = maximum acceptable ground level concentration	PSD = Prevention of Significant Deterioration
CFC = chlorofluorocarbon	mg/m3 = milligrams per cubic meter	psi = pounds per square inch
CFR = Code of Federal Regulations	MM = million	psia = pounds per square inch absolute
CH_4 = methane	MMBtu = million British Thermal Units	PTE = potential-to-emit
CI = compression ignition	MSDS = material safety data sheet	PTI = Permit-to-Install
CO = carbon monoxide	MSW = municipal solid waste	PTIO = Permit-to-Install and Operate
CO_2 = carbon dioxide	NAAQS = National Ambient Air Quality Standard	PTO = Permit-to-Operate
COM = continuous opacity monitor	NESHAP = National Emission Standard for Hazardous Air Pollutants	PWR = process weight rate
DAPC = Division of Air Pollution Control	NG = natural gas	RACM = reasonably available control measures
DO/LAA = District Office/Local Air Agency	ng/m3 = nanograms per cubic meter	RACT = reasonably available control technology
dscf = dry standard cubic foot	NH_3 = ammonia	RATA = relative accuracy test audit
EAC = emissions activity category	NMHC = non-methane hydrocarbons	RTO = regenerative thermal oxidizer
eDocs = electronic documents database	NMOC = non-methane organic compound	SB265 = Senate Bill 265
ERAC = Environmental Review Appeals Commission	NO = nitrogen oxide	scfm = standard cubic feet per minute
ESP = electrostatic precipitator	NO_2 = nitrogen dioxide	SI = spark ignition
EU = emissions unit	NO_x = nitrogen oxides	SIP = State Implementation Plan
FEPTIO = Federally Enforceable Permit-to-Install and Operate	NSPS = New Source Performance Standard	SO_2 = sulfur dioxide
FER = Fee Emissions Report	NSR = New Source Review	SSMP = startup, shutdown, and malfunction plan
FR = Federal Register	NTV = Non-Title V	TDS = total dissolved solids
GACT = generally achievable control technology	O&M = operation and maintenance	TLV = threshold limit value
GHG = greenhouse gases	OAC = Ohio Administrative Code	TO = thermal oxidizer
gr/dscf = grains per dry standard cubic foot	OC = organic compound	TPH = ton(s) per hour
H_2S = hydrogen sulfide	Ohio EPA = Ohio Environmental Protection Agency	TPY = ton(s) per year
H_2SO_4 = sulfuric acid	ORC = Ohio Revised Code	TSP = total suspended particulates
HAP = hazardous air pollutant	Pb = lead	VE = visible particulate emissions
HCl = hydrogen chloride	PBR = Permit-By-Rule	VMT = vehicle miles traveled
HF = hydrogen fluoride	PCB = polychlorinated biphenyl	VOC = volatile organic compound
Hg = mercury	PE = particulate emissions	WPP = work practice plan
hp = horsepower	PEMS = predictive emissions monitoring system	µg/m3 = micrograms per cubic meter

A. Standard Terms and Conditions

1. Federally Enforceable Standard Terms and Conditions

a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under state law only:

(1) Standard Term and Condition A.2.a), Severability Clause

(2) Standard Term and Condition A.3.c) through A. 3.e), General Requirements

(3) Standard Term and Condition A.6.c), Compliance Requirements

(4) Standard Term and Condition A.9., Reporting Requirements

(5) Standard Term and Condition A.10., Applicability

(6) Standard Term and Condition A.11.b) through A.11.e), Construction of New Source(s) and Authorization to Install

(7) Standard Term and Condition A.14., Public Disclosure

(8) Standard Term and Condition A.15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

(9) Standard Term and Condition A.16., Fees

(10) Standard Term and Condition A.17., Permit Transfers

2. Severability Clause

a) A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

b) All terms and conditions designated in parts B. and C. of this permit are federally enforceable as a practical matter, if they are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA and the state and by citizens (to the extent allowed by section 304 of the Act) under the Act. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under state law only, only if specifically identified in this permit as such.

3. General Requirements

a) Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act and is grounds for enforcement action or for permit revocation, revocation and re-issuance, or modification.

b) It shall not be a defense for the 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 federally enforceable terms and conditions of this permit.

c) This permit may be modified, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.

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

e) The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

4. Monitoring and Related Record Keeping and Reporting Requirements

a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:

(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 analyses.

(4) The analytical techniques or methods used.

(5) The results of such analyses.

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

b) Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

c) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:

(1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Southwest Ohio Air Quality Agency.

(2) Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the Southwest Ohio Air Quality Agency. The written reports shall be submitted quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See A.15. below if no deviations occurred during the quarter.

(3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the Southwest Ohio Air Quality Agency every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semiannual report, which states that no deviations occurred during that period.

(4) This permit is for an emissions unit located at a Title V facility. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the Southwest Ohio Air Quality Agency in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06.

Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

6. Compliance Requirements

a) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the appropriate Ohio EPA District Office or contracted local air agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the electronic signature date shall constitute the date that the required application, notification or report is considered to be "submitted". Any document requiring signature may be represented by entry of the personal identification number (PIN) by responsible official as part of the electronic submission process or by the scanned attestation document signed by the Authorized Representative that is attached to the electronically submitted written report.

Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a Responsible Official that, based on

information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete

b) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:

(1) At reasonable times, enter upon the permittee's premises where a source is located, or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.

(2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.

(3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.

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

c) The permittee shall submit progress reports to the Southwest Ohio Air Quality Agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:

(1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.

(2) An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

7. Best Available Technology

As specified in OAC Rule 3745-31-05, new sources that must employ Best Available Technology (BAT) shall comply with the Applicable Emission Limitations/Control Measures identified as BAT for each subject emissions unit.

8. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

9. Reporting Requirements

The permittee shall submit required reports in the following manner:

a) Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the Southwest Ohio Air Quality Agency.

b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will

be taken, shall be submitted to the Southwest Ohio Air Quality Agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

10. Applicability

This permit-to-install is applicable only to the emissions unit(s) identified in the permit-to-install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s) not exempt from the requirement to obtain a permit-to-install.

11. Construction of New Sources(s) and Authorization to Install

a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. This deadline may be extended once by twelve months if application is made to the Director within a reasonable time before the termination date and the permittee shows good cause for any such extension.

c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed by marking the affected emissions unit(s) as "permanently shut down" in "Air Services" along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update electronically will constitute notifying the Director of the permanent shutdown of the affected emissions unit(s).

d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a

subsequent "modification" or "installation" as defined in OAC Chapter 3745-31). All records relating to any permanently shut down emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the reporting requirements identified in this permit covering the last period the emissions unit operated.

Unless otherwise exempted, no emissions unit certified by the responsible official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31 and OAC Chapter 3745-77 if the restarted operation is subject to one or more applicable requirements.

e) The permittee shall comply with any residual requirements related to this permit, such as the requirement to submit a deviation report, air fee emission report, or any other reporting required by this permit for the period the operating provisions of this permit were enforceable, or as required by regulation or law. All reports shall be submitted in a form and manner prescribed by the Director. All records relating to this permit must be maintained in accordance with law.

12. Permit-To-Operate Application

The permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77. The permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve months after commencing operation of the emissions units covered by this permit. However, if operation of the proposed new or modified source(s) as authorized by this permit would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d) must be obtained before operating the source in a manner that would violate the existing Title V permit requirements.

13. Construction Compliance Certification

The applicant shall identify the following dates in the "Air Services" facility profile for each new emissions unit identified in this permit.

a) Completion of initial installation date shall be entered upon completion of construction and prior to start-up.

b) Commence operation after installation or latest modification date shall be entered within 90 days after commencing operation of the applicable emissions unit.

14. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

15. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

16. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable permit-to-install fees within 30 days after the issuance of any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

17. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The new owner must update and submit the ownership information via the "Owner/Contact Change" functionality in "Air Services" once the transfer is legally completed. The change must be submitted through "Air Services" within thirty days of the ownership transfer date.

18. Risk Management Plans

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

19. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

B. Facility Wide Terms and Conditions

1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

   a) None.

2. The following emissions units contained in this permit are subject to 40 CFR Part 60, Subparts A and XXX, Standards of Performance for Municipal Solid Waste Landfills (NSPS): P003 and P004. The complete NSPS requirements, including the NSPS General Provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website http://ecfr.gov or by contacting the appropriate Ohio EPA District office or local air agency.

3. The following emissions units contained in this permit are subject to 40 CFR Part 63, Subparts A and AAAA, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Municipal Solid Waste Landfills: P003 and P004. The complete NESHAP requirements, including the NESHAP General Provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website http://ecfr.gov or by contacting the appropriate Ohio EPA District office or local air agency.

4. Applicable Facility-Wide Emissions Limitations

   a) The specific operation(s), property, and/or equipment that constitute the facility along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Facility-wide emissions shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table:

	Applicable Rules/Requirements	Applicable Emissions Limitations
(1)	OAC rule 3745-31-05(D) *Special Terms and Conditions (Synthetic Minor) to Avoid PSD Requirements for CO emissions*	Emissions of CO from Gas Plant #1 (P001 & TOX5 unit), Gas Plant #2 (P002 & TOX 6 unit), Gas Plant #3 (P003 & TOX 3 unit), and Landfill Flare System (P004; utility Flare 1, Utility Flare 2, & Flare 3), combined, shall not exceed 240 TPY based on a rolling, 12-month summation. See B.4.b)(1) and B.5. through B.8.

   b) Additional Terms and Conditions

      (1) This Administrative Modification address *facility-wide* CO emissions from Gas Plants #1, #2, & #3 in preparation for their replacement with a new Gas Plant. The PTIs and emissions units affected by this Administrative Modification are P0131025, issued 12/22/2021, covering emissions units P001 (Gas Plant #1) and P002 (Gas Plant #2), and P0125062, issued 08/12/2019, covering emissions units P003 (Gas Plant #3) and P004 (Landfill Flare System). P0125062 included full PSD requirements for CO emissions from P003 & P004, combined [C.3.b)(1)b., C.4.b)(1)b. in P0125062; 417 TPY CO].

This Administrative Modification will allow the facility to avoid PSD *facility-wide* for CO emissions during the transition from the operation of Plants #1 - #3 to the operation of the new Plant.

GSF has submitted a PTI Application (A0080761, 04/27/2026) for the installation of the new Gas Plant. The facility will remain a Synthetic Minor to Avoid PSD for CO emissions with this installation. Prior PSD decisions for other pollutants in P0125062 will be addressed with new facility-wide Synthetic Minor to avoid PSD requirements in the resultant Initial PTI. P004, the Landfill Flare System, will continue to operate although only with the Parnell Utility Flare 1.

5. Operational Restrictions

a) The maximum annual landfill gas throughput for emissions units P001 – P004, combined, shall not exceed 8,410,000,000 scf based upon a rolling 12-month summation of landfill gas throughput, such that emissions of CO from emissions units P001 – P004, combined, do not exceed 240 tons based upon a rolling 12-month summation of emissions.

6. Monitoring and/or Recordkeeping Requirements

a) The permittee shall collect and record the following information on a monthly basis for emissions units P001, P002, P003, and P004:

(1) The amount of landfill gas throughput, in scf, for each emissions unit;

(2) The calculated CO emissions, in tons, for each emissions unit;

(3) The total landfill gas throughput, in scf, for emissions units P001 – P004, combined;

(4) The total CO emissions, in tons, for emissions units P001 – P004, combined;

(5) The rolling, 12-month summation of landfill gas throughput, in scf, for emissions units P001 – P004, combined; and

(6) The rolling, 12-month summation of CO emissions, in tons, for emissions units P001 – P004, combined.

7. Reporting Requirements

a) The permittee shall submit quarterly deviation (excursion) reports that identify:

(1) All deviations (excursions) of the following emission limitations, operational restrictions, and/or control device operating parameter limitations that restrict the PTE of any regulated air pollutant and have been detected by the monitoring, recordkeeping, and/or testing requirements in this permit:

a. The maximum annual landfill gas throughput and CO emissions limitation for P001 – P004, combined, in accordance with the operational restriction in B.5.a).

(2) The probable cause of each deviation (excursion).

(3) Any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions).

(4) The magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states no deviations (excursions) occurred during the quarter.

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions in Section A of this permit.

8. Testing Requirements

a) Compliance with the Emissions Limitations and/or Control Requirements specified in this Section shall be determined in accordance with the following methods:

(1) Emissions Limitation:

The maximum annual landfill gas throughput for emissions units P001 – P004, combined, shall not exceed 8,410,000,000 scf based upon a rolling 12-month summation of landfill gas throughput, such that emissions of CO from emissions units P001 – P004, combined, do not exceed 240 tons based upon a rolling 12-month summation of emissions.

Applicable Compliance Methods:

Compliance with the annual landfill gas throughput limitation shall be demonstrated by the recordkeeping requirements in B.6.a).

Compliance with the rolling 12-month summation of CO emissions from emissions units P001 – P004, combined, shall be demonstrated by the recordkeeping requirements in B.6.a). Emissions of CO shall be calculated by the following equations as provided in PTI application #M0008647, submitted 3/26/2026:

$$\sum_{M=1}^{12}\left[CO_{M,P001} + CO_{M,P002} + CO_{M,P003} + CO_{M,P004}\right] \leq 240\ tons\ CO$$

Where:

M = the increment of the rolling, 12-month period;

$CO_{M,P001} = CO_{M,TOX5} + CO_{M,Flare\ 1\ (P001)}$

Where:

$$CO_{M,TOX5} = \left(Q_{M,TOX5-WG} + Q_{M,TOX5-F}\right)\left(EF_{TOX5}\right)\left(\frac{1\ ton}{2000\ lbs}\right)$$

$Q_{M,TOX5-WG}$ = Monthly TOX5 waste gas throughput, in mmscf

$Q_{M,TOX5-F}$ = Monthly TOX5 fuel throughput, in mmscf

EF_{TOX5} = TOX5 CO emission factor, in lb/mmscf (18.05 lbs/mmscf based on 8/21/2020 stack test data)

$$CO_{M,Flare\ 1\ (P001)} = \left(Q_{M,Flare\ 1\ (P001)}\right)\left(EF_{Flare\ 1}\right)\left(\frac{1\ ton}{2000\ lbs}\right)$$

$Q_{M,Flare\ 1\ (P001)}$ = Monthly P001 Flare off-spec gas throughput, in mmscf

$EF_{Flare\ 1}$ = Flare 1 CO emission factor, in lb/mmscf (58 lbs/mmscf based on AP-42 Section 2.4, Table 2.4-5 – May 2025, and a maximum methane concentration of 100% for off-spec gas)

$$CO_{M,P002} = CO_{M,TOX6} + CO_{M,Flare\ 1\ (P002)}$$

Where:

$$CO_{M,TOX6} = (Q_{M,TOX6-WG} + Q_{M,TOX6-F})(EF_{TOX6})\left(\frac{1\ ton}{2000\ lbs}\right)$$

$Q_{M,TOX6-WG}$ = Monthly TOX6 waste gas throughput, in mmscf

$Q_{M,TOX6-F}$ = Monthly TOX6 fuel throughput, in mmscf

EF_{TOX6} = TOX6 CO emission factor, in lb/mmscf (21.42 lbs/mmscf based on 12/6/2022 stack test data)

$$CO_{M,Flare\ 1\ (P002)} = (Q_{M,Flare\ 1\ (P002)})(EF_{Flare\ 1})\left(\frac{1\ ton}{2000\ lbs}\right)$$

$Q_{M,Flare\ 1\ (P001)}$ = Monthly P002 Flare off-spec gas throughput, in mmscf

$EF_{Flare\ 1}$ = Flare 1 CO emission factor, in lb/mmscf (58 lbs/mmscf based on AP-42 Section 2.4, Table 2.4-5 – May 2025, and a maximum methane concentration of 100% for off-spec gas)

$$CO_{M,P003} = CO_{M,TOX3}$$

Where:

$$CO_{M,TOX3} = (Q_{M,TOX3-WG} + Q_{M,TOX3-F})(EF_{TOX3})\left(\frac{1\ ton}{2000\ lbs}\right)$$

$Q_{M,TOX3-WG}$ = Monthly TOX3 waste gas throughput, in mmscf

$Q_{M,TOX3-F}$ = Monthly TOX3 fuel throughput, in mmscf

EF_{TOX3} = TOX3 CO emission factor, in lb/mmscf (21.95 lbs/mmscf based on 7/7/2016 stack test data)

$$CO_{M,P004} = CO_{M,UF1} + CO_{M,UF2} + CO_{M,Flare\ 3}$$

Where:

$$CO_{M,UF1} = (Q_{M,UF1})(EF_{UF1})(CH_{4,UF1})\left(\frac{1\ ton}{2000\ lbs}\right)$$

$Q_{M,UF1}$ = Monthly Utility Flare 1 LFG throughput, in mmscf

EF_{UF1} = Utility Flare 1 CO emission factor, in lbs/mmscf CH_4 (58 lbs/mmscf CH_4 based on AP-42 Section 2.4, Table 2.4-5 – May 2025)

$CH_{4,UF1}$ = Utility Flare 1 monthly average methane concentration, in %

$$CO_{M,UF2} = (Q_{M,UF2})(EF_{UF2})(CH_{4,UF2})\left(\frac{1\ ton}{2000\ lbs}\right)$$

$Q_{M,UF2}$ = Monthly Utility Flare 2 LFG throughput, in mmscf

EF_{UF2} = Utility Flare 2 CO emission factor, in lbs/mmscf CH_4 (58 lbs/mmscf CH_4 based on AP-42 Section 2.4, Table 2.4-5 – May 2025)

$CH_{4,UF2}$ = Utility Flare 2 monthly average methane concentration, in %

$$CO_{M,Flare\ 3} = (Q_{M,Flare\ 3})(EF_{Flare\ 3})\left(\frac{1\ ton}{2000\ lbs}\right)$$

$Q_{M,\text{Flare 3}}$ = Monthly Flare 3 LFG throughput, in mmscf

$EF_{Flare\ 3}$ = Flare 3 CO emission factor, in lbs/mmscf (35.87 lbs/mmscf CH_4 based on 6/21/2016 and 6/23/2016 stack test data)

C. Emissions Unit Terms and Conditions

1. P003, LFG Plant #3

Operations, Property and/or Equipment Description:

6,756 mmscf/year Landfill Gas Recovery Process; Gas Plant #3

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Hourly Emissions from P003 shall not exceed the following including off-spec gas combustion (See below for emission limits when burning raw landfill gas): NMOC emissions shall not exceed 3.83 lbs/hr; CO emissions shall not exceed 48.48 lbs/hr; PE shall not exceed 2.75 lbs/hr; $PM_{10}/PM_{2.5}$ emissions shall not exceed 2.75 lbs/hr; NOx emissions shall not exceed 26.0 lbs/hr; SO_2 emissions shall not exceed 6.7 lbs/hr; HCl emissions shall not exceed 10.3 lbs/hr; HF emissions shall not exceed 1.7 lbs/hr; Hourly emissions from the enclosed combustor/flare #3 when burning raw landfill gas shall not exceed the following: CO emissions shall not exceed 95.4 lbs/hr;

		PE shall not exceed 7.3 lbs/hr; $PM_{10}/PM_{2.5}$ emissions shall not exceed 7.3 lbs/hr; Annual Emissions from P003 and P004, combined, shall not exceed the following: NMOC emissions shall not exceed 16.79 TPY; PE shall not exceed 31.87 TPY; PM_{10} shall not exceed 31.87 TPY;* $PM_{2.5}$ shall not exceed 31.87 TPY; NOx emissions shall not exceed 113.83 TPY;* SO_2 emissions shall not exceed 29.3 TPY; HCl emissions shall not exceed 45.18 TPY; HF emissions shall not exceed 7.28 TPY; Fluorotrichloromethane (CFC-11) emissions shall not exceed 0.02 TPY;* Dichlorodifluoromethane (CFC-12) emissions shall not exceed 0.37 TPY;* and Methane emissions shall not exceed 1,563 TPY. See b)(2)f. and b)(2)g. The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D) in b)(1)c., below.
b.	OAC rules 3745-31-11 through 3745-31-20 *Prevention of Significant Deterioration (PSD)*	The pollutant emission limitations asterisked in b)(1)a. above are subject to the requirements of these rules.
c.	OAC rule 3745-31-05(D)	See Section B.4. through B.8.

	Federally Enforceable Restrictions to Avoid PSD Requirements	
d.	OAC rule 3745-17-07(A)	Exempt. See b)(2)e.
e.	40 CFR Part 60, Subpart XXX [40 CFR 60.760-769] *Standards of Performance for Municipal Solid Waste (MSW) Landfills that Commenced Construction, Reconstruction, or Modification After July 17, 2014* [Pursuant to 60.760(a) and 60.762(b), the landfill expansion project (authorized by PTI #P0124272 issued to Rumpke Sanitary Landfill, Inc. under Facility ID 1431092049) commenced on 10/23/2019, therefore, this emissions unit is associated with a MSW landfill that commenced modification after July 17, 2014, that has a design capacity greater than 2.5 million Mg and 2.5 million m^3, and has NMOC emissions equal to or exceeding 34 Mg/yr, therefore, this emissions unit is subject to the emission limitations and control measures specified in 40 CFR Part 60, Subpart XXX.]	See b)(2)a., b)(2)b., b)(2)h., and c)(1).
f.	40 CFR Part 63, Subpart AAAA [40 CFR 63.1930-1990] *National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills* [In accordance with 63.1935(a) and 63.1940, this emissions unit is associated with an existing affected MSW landfill.]	See b)(2)c., b)(2)d., b)(2)i., c)(1), and c)(2).
g.	40 CFR 63.1-15 [40 CFR 63.1930-1990]	Table 1 to Subpart AAAA of Part 63 – Applicability of General Provisions to Subpart AAAA shows which parts of the General Provisions in 40 CFR 63.1-15 apply.

(2) Additional Terms and Conditions

a. The permittee shall comply with the applicable requirements under 40 CFR Part 60, Subpart XXX, including the following sections:

60.762(b)(2)(i)	Collection and control system design plan requirements
60.762(b)(2)(ii)	Collection and control system installation
60.762(b)(2)(iii)	Route all collected gas to a control system [see b)(2)b. below]
60.762(b)(2)(iv)	Operation of the collection and control device(s) in accordance with 60.763, 60.765, and 60.766 or the provisions of 40 CFR 63.1958, 63.1960, and 63.1961. Once the permittee begins to comply with the provisions of 40 CFR 63.1958, 63.1960, and 63.1961, the permittee shall continue to operate the collection and control device according to those provisions and cannot return to the provisions of 40 CFR 60.763, 60.765, and 60.766.*
60.762(b)(2)(v)(A) through (C)	Provisions for capping or removal of collection and control system
60.769(c)	Specifications for control equipment for active collection systems

**On 2/23/2021, the permittee submitted notification of compliance with the provisions of the NESHAP 40 CFR Part 63 Subpart AAAA in lieu of compliance with the provisions of NSPS Subpart XXX as provided in 60.762(b)(2)(iv) above, effective 1/1/2021. Therefore, the permittee shall comply with these provisions as specified in this permit.*

b. Pursuant to 60.762(b)(2)(iii), the permittee shall route all the collected gas to a control system that complies with the requirements in either i., ii., or iii. below:

i. A non-enclosed flare designed and operated in accordance with the parameters established in 40 CFR 60.18 except as noted in 60.764(e). Specific flare requirements are addressed in Part C. Emissions Unit Terms and Conditions, P004;

ii. A control system designed and operated to reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control to either reduce NMOC by 98 weight-percent or reduce the outlet NMOC concentration to less than 20 parts per million (ppm) by volume, dry basis as hexane at 3 percent oxygen. The reduction efficiency or ppm by volume shall be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using test methods specified in 60.764(d). The performance test is not required for boilers and process heaters

with design heat input capacities equal to or greater than 44 megawatts that burn landfill gas for compliance with this subpart;

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

(b) The control device shall be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in 60.766*.

iii. A treatment system that processes the collected gas for subsequent sale or beneficial use such as fuel for combustion, production of vehicle fuel, production of high-Btu gas for pipeline injection, or use as a raw material in a chemical manufacturing process. Venting of treated landfill gas to the ambient air is not allowed. If the treated landfill gas cannot be routed for subsequent sale or beneficial use, then the treated landfill gas must be controlled according to the requirements of 60.762(b)(2)(iii)(A) or (B).

iv. All emissions from an atmospheric vent from the gas treatment system are subject to the requirements of paragraph (b)(2)(iii)(A) or (B) of this section. For purposes of this subpart, atmospheric vents located on the condensate storage tank are not part of the treatment system and are exempt from the requirements of paragraph (b)(2)(iii)(A) or (B) of this section.

*as specified in 40 CFR 63.1961, in lieu of 60.766.

c. The permittee shall comply with the applicable requirements under 40 CFR Part 63, Subpart AAAA, including the following sections:

63.1930(b)	Beginning no later than September 27, 2021, all landfills described in §63.1935 must meet the requirements of this subpart. A landfill may choose to meet the requirements of this subpart rather than the requirements identified in §63.1930(a) at any time before September 27, 2021*. The requirements of this subpart apply at all times, including during periods of SSM, and the SSM requirements of the General Provisions of this part do not apply. **the permittee shall comply with the requirements of this subpart effective 1/1/2021 [ref. b)(2)a. above].*
63.1955(c)	Requirements for sources with collection and control system(s) – general duty to maintain equipment and minimize emissions
63.1957(a)	Operation of the collection and control device(s) in accordance with 63.1958, 63.1960, and 63.1961.

63.1957(b)	Provisions for capping or removal of collection and control system
63.1959(b)(2)(i) and 63.1955(a)	Collection and control system design plan requirements
63.1959(b)(2)(ii)	Collection and control system installation
63.1959(b)(2)(ii)(B)(1) through (4)	Active collection system requirements
63.1959(b)(2)(iii)	Route all collected gas to a control system [see b)(2)d. below]
63.1962(c)	Specifications for control equipment for active collection systems

d. Pursuant to 63.1959(b)(2)(iii), the permittee shall route all the collected gas to a control system that complies with the requirements in either i., ii., or iii. below:

i. A non-enclosed flare designed and operated in accordance with the parameters established in 40 CFR 63.11(b) except as noted in 63.1959(e);

ii. A control system designed and operated to reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control to either reduce NMOC by 98 weight-percent or reduce the outlet NMOC concentration to less than 20 ppm by volume, dry basis as hexane at 3 percent oxygen. The reduction efficiency or ppm by volume shall be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using test methods specified in 63.1959(d). The performance test is not required for boilers and process heaters with design heat input capacities equal to or greater than 44 megawatts that burn landfill gas for compliance with this subpart;

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

(b) The control device shall be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in 63.1961(b) through (e).

iii. A treatment system that processes the collected gas for subsequent sale or beneficial use such as fuel for combustion, production of vehicle fuel, production of high-Btu gas for pipeline injection, or use as a raw material in a chemical manufacturing process. Venting of treated landfill gas to the ambient air is not allowed. If the treated landfill gas cannot be routed for subsequent

sale or beneficial use, then the treated landfill gas must be controlled according to the requirements of 63.1959(b)(2)(iii)(A) or (B).

e. Visible particulate emissions from the stacks associated with emissions unit P003 shall not exceed 20% opacity, as a 6-minute average.

f. Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the visible particulate emission limitations, a properly designed and operated landfill gas collection system and a control system capable of reducing NMOC in the collected gas by 98% or an outlet concentration of 20 ppmv hexane at 3% oxygen, compliance with 40 CFR Part 60, Subpart XXX, and 40 CFR Part 61 Subpart AAAA.

g. The hourly emission limitations are based upon the emissions unit's potential to emit. Therefore, no additional monitoring, record keeping or reporting requirements are required to demonstrate compliance with these emission limitations.

h. The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 60 are also federally enforceable.

i. The application and enforcement of the provisions of the National Emission Standards for Hazardous Air Pollutants (NESHAP), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 63, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 63 are also federally enforceable.

c) Operational Restrictions

(1) Whenever any enclosed combustor(s) are in operation, the average combustion temperature for any 3-hour block of time shall be no more than 82 degrees Fahrenheit (28 degrees Celsius) below the average temperature during the most recent test which demonstrated compliance with b)(2)b. and b)(2)d.

(2) The permittee shall comply with the applicable requirements under 40 CFR Part 63, Subpart AAAA, including the following sections:

63.1958(e) and (f)	Overall collection and control system operating and shutdown requirements
63.1960(e)	Startup, shutdown, and malfunction provisions and time period limitations

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall comply with the applicable monitoring and recordkeeping requirements in 40 CFR Part 60, Subpart XXX, including the following sections:

60.768(b)	Record keeping requirements for control equipment
60.768(b)(2)	Record keeping requirements for temperature and NMOC percent reduction of enclosed combustion device(s).
60.768(c)(1)(i)	Record keeping requirements for enclosed combustor temperature exceedances
60.768(e) and (e)(6)	Record keeping requirements for the date when the owner or operator started complying with the provisions of 40 CFR 63.1958, 63.1960, and 63.1961.
60.768(i)	Record retention requirements

(2) The permittee shall collect and record the following information for each day:

a. all 3-hour blocks of time during which the average combustion temperature within any enclosed combustor, when the emissions unit was in operation, was more than 82 degrees Fahrenheit (28 degrees Celsius) below the average temperature during the most recent test which demonstrated compliance with b)(2)b. and b)(2)d.; and

b. a log of the downtime for the capture (collection) system, control device and monitoring equipment when the associated emissions unit was in operation.

(3) The permittee shall comply with the applicable monitoring and record keeping requirements under 40 CFR Part 63, Subpart AAAA, including the following sections:

63.1975	Requirements for computation of 3-hour block averages
63.1958(g)	Overall monitoring and corrective action requirements
63.1961(b)	Monitoring requirements for enclosed combustors
63.1961(c)	Monitoring requirements for non-enclosed flares
63.1961(d)	Monitoring requirements for control devices other than an enclosed combustor or non-enclosed flare or treatment system
63.1961(g)	Monitoring requirements for landfill gas treatment system
63.1961(h)	General monitoring system operating requirements
63.1964(a) and (b)	SSM plan recordkeeping requirements

63.1983	Record keeping requirements as specified in 40 CFR Part 63 Subpart A and Table 1 of Subpart AAAA
63.1983(b)(2)	Record keeping requirements for enclosed combustors
63.1983(b)(5)	Record keeping requirements for treatment systems
63.1983(c)(1), (2), and (5) through (8)	Record keeping requirements for equipment operating parameters.
63.1983(e)(1)	Record keeping requirements for exceedances of operational standards in 63.1958
63.1983(g)	Each owner or operator subject to the provisions of 40 CFR Part 63, Subpart AAAA 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 40 CFR 63.1961(a)(1) through (6), except as provided in 40 CFR Part 63.1981(d)(2).
63.1983(i)	Any records required to be maintained that are submitted electronically may be maintained in electronic format.

(4) The permittee shall maintain records which document the annual CO, PE, PM_{10}, $PM_{2.5}$, NOx, SO_2, HCl, HF and methane emissions for this emissions unit.

e) Reporting Requirements

(1) The permittee shall submit notifications and reports to the appropriate Ohio EPA District office as required pursuant to 40 CFR Part 60, Subparts A and XXX, per the following sections:

60.767(b)(3)	NMOC reporting exemption for collection and control systems
60.767(c)	Collection and control system design plan submission requirements
60.767(d)	Revised collection and control system design plan submission requirements
60.767(f)	Each owner or operator of a controlled landfill shall submit an equipment removal report 30 days prior to removal or cessation of operation of the control equipment. The equipment removal report shall contain all of the items in 40 CFR 60.767(f).
60.767(g)	Each owner or operator of a landfill seeking to comply with 40 CFR 60.762(b)(2) using an active collection system designed in accordance with 40 CFR 60.762(b)(2)(ii) shall submit annual reports of the recorded information in 40 CFR 60.767(g)(1) through (g)(7). The initial annual report shall be submitted within 180 days of installation and start-up of the collection and control system, and

	shall include the initial performance test report required under 40 CFR 60.8.
60.767(h)	Each owner or operator seeking to comply with 40 CFR 60.762(b)(2)(iii) shall include the information in 40 CFR 60.767(h) with the initial performance test report required under 40 CFR 60.8.
60.767(i)	The owner or operator must submit reports electronically according to 40 CFR 60.767(i)(1) and (i)(2).
60.767(j)	The owner or operator must submit corrective actions and corresponding timelines according to 40 CFR 60.767(j)(1) and (j)(2).

(2) The permittee shall comply with the applicable reporting requirements under 40 CFR Part 63, Subpart AAAA, including the following sections:

63.1965(a) – (c)	Deviation definition and requirements and SSM plan requirements
63.1981	Reporting requirements as specified in 40 CFR Part 63, Subpart A and Table 1 of Subpart AAAA
63.1981(c)(3)	NMOC reporting exemption for collection and control systems
63.1981(d)	Collection and control system design plan submission requirements
63.1981(e)	Revised collection and control system design plan submission requirements
63.1981(g)	Equipment removal reporting requirements
63.1981(h) and 63.1955(a)	Semi-annual reporting requirements
63.1981(i)	Each owner or operator seeking to comply with 40 CFR 63.1959(b)(2)(iii) shall include the information in 40 CFR 63.1981(i) with the initial performance test report required under 40 CFR 63.7.
63.1981(j)	The owner or operator must submit corrective actions and corresponding timelines according to 40 CFR 63.1981(j)(1) and (j)(2).
63.1981(l)	The owner or operator must submit reports electronically according to 40 CFR 63.1981(l)(1) and (l)(2).

63.1981(m)	Claims of U.S. EPA system outage requirements
63.1981(n)	Claims of force majeure requirements

(3) The permittee shall submit quarterly deviation (excursion) reports that include the following information:

a. an identification of each 3-hour block of time during which the average combustion temperature within the enclosed combustor, when the emissions unit was in operation, was more than 82 degrees Fahrenheit (28 degrees Celsius) below the average temperature during the most recent test which demonstrated compliance with b)(2)b. and b)(2)d.;

b. all periods when the gas stream is diverted from the control device or recovery system through a bypass line or the indication of bypass flow or any record which indicates that the bypass line valve was not maintained in the closed position;

c. the description and duration of all periods when the recovery and treatment system was not operating for a period exceeding 1 hour and the length of time the recovery and treatment system was not operating.

The quarterly reporting requirement above may be more stringent than annual reporting requirements specified in 40 CFR Part 60, Subpart XXX, and semi-annual reporting requirements specified in 40 CFR Part 63, Subpart AAAA. The permittee shall comply with all applicable reporting requirements, including any less stringent requirements.

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

(4) The permittee shall submit annual reports that specify the total NMOC, CO, PE, PM_{10}, NOx, SO_2, HCl, HF, and methane emissions from this emissions unit for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific data for this emissions unit in the annual Fee Emission Report.

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. <u>Emission Limitation:</u>

Reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control to either reduce NMOC by 98 weight-percent or reduce the outlet NMOC concentration to less than 20 parts per million (ppm) by volume, dry basis as hexane at 3 percent oxygen.

Applicable Compliance Method:

Compliance shall be demonstrated by compliance with the monitoring and testing requirements of 40 CFR Part 60, Subpart XXX and 40 CFR Part 63, Subpart AAAA, as specified in d)(1) – d)(3), f)(2), and f)(3) below.

b. Emission Limitation:

Visible particulate emissions from the stacks serving the P003 shall not exceed 20% opacity, as a 6-minute average.

Applicable Compliance Method:

Compliance with these emission limitations shall be determined through visible emissions observations performed in accordance with Method 9 of 40 CFR Part 60, Appendix A.

No visible emissions observations are specifically required to demonstrate compliance with this emission limitation but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A).

c. Emissions Limitations:

Hourly stack emissions from Gas Recovery Plant 3 shall not exceed the following, including off-spec gas combustion:

NMOC emissions shall not exceed 3.83 lbs/hr;

CO emissions shall not exceed 48.18 lbs/hr;

PE emissions shall not exceed 2.75 lbs/hr;

PM_{10} emissions shall not exceed 2.75 lbs/hr;

$PM_{2.5}$ emissions shall not exceed 2.75 lbs/hr;

NOx emissions shall not exceed 26.0 lbs/hr;

SO_2 emissions shall not exceed 6.7 lbs/hr;

HCl emissions shall not exceed 10.3 lbs/hr; and

HF emissions shall not exceed 1.7 lbs/hr.

Hourly emissions from the enclosed combustor/flare # 3 when burning raw landfill gas shall not exceed the following:

CO emissions shall not exceed 95.4 lbs/hr;

PE emissions shall not exceed 7.3 lbs/hr;

PM_{10} emissions shall not exceed 7.3 lbs/hr; and

$PM_{2.5}$ emissions shall not exceed 7.3 lbs/hr.

Annual emissions from P003 and P004 combined shall not exceed the following:

NMOC emissions shall not exceed 16.79 TPY;

PE emissions shall not exceed 31.87 TPY;

PM_{10} emissions shall not exceed 31.87 TPY;

$PM_{2.5}$ emissions shall not exceed 31.87 TPY;

NOx emissions shall not exceed 113.83 TPY;

SO_2 emissions shall not exceed 29.3 TPY;

HCl emissions shall not exceed 45.18 TPY;

HF emissions shall not exceed 7.28 TPY;

Fluorotrichloromethane (CFC-11) shall not exceed 0.02 TPY;

Dichlorodifluoromethane (CFC-12) shall not exceed 0.37 TPY; and

Methane emissions shall not exceed 1563 TPY.

Applicable Compliance Method:

The hourly emission limitations represent the emission unit's potential to emit based upon emission factors, control efficiencies (if applicable), and the operational parameters as submitted in PTI application A0061577 (September 14, 2018), including US EPA's Landfill Gas Emissions Model along with AP-42, Section 2.4.

Where applicable, the actual emission rates shall be calculated from the results of the most recent stack test which demonstrated compliance using test methods in accordance with 40 CFR Part 60, Appendix A, or alternative US EPA-approved test methods with prior approval of Ohio EPA. See f)(2) – f)(4).

The annual emission limitations are based upon emission factors, control efficiencies (if applicable), and the operational parameters as submitted in PTI application A0061577 (September 14, 2018), including US EPA's Landfill Gas Emissions Model along with AP-42, Section 2.4.

(2) The permittee shall comply with the applicable testing requirements under 40 CFR Part 60, Subpart XXX, including the following sections:

60.764(b)	NMOC emission rate calculation for equipment removal
60.764(c)	NMOC emission rate determination for PSD
60.762(b)(2)(iii)(B) and 60.764(d)	Performance test and test method requirements for enclosed combustor(s)

(3) The permittee shall comply with the applicable testing requirements under 40 CFR Part 63, Subparts A and AAAA, including the following sections:

63.1959(c)	NMOC emission rate calculation for equipment removal
63.1959(b)(2)(iii)(B), 63.1959(d), and 63.1959(f)	Performance test and test method requirements for enclosed combustor(s)

(4) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing for Plant 3 shall follow the schedule specified in the Title V PTO and shall be conducted approximately 2.5 years after the issuance of that permit.

b. The emission testing for Plant 3 (which includes the thermal oxidizer and enclosed flare off-spec gas combustor) shall be conducted to demonstrate compliance with the NMOC hourly emission limitation specified in b)(1)a., and compliance with the control efficiency requirements of 40 CFR Part 63, Subpart AAAA in b)(2)d., and 40 CFR Part 60, Subpart XXX in b)(2)b.

c. The following test methods shall be employed to demonstrate compliance with the NMOC (lbs/hr) emission limitation and the control system efficiency requirements:

i. Methods 1 through 4 and 25, 25A, 25C or Method 18, as appropriate, as specified in 40 CFR Part 60, Appendix A; and

ii. Any required test method variations or alternative procedures as specified in 60.764(d) and (e) of Subpart XXX [see f)(2) above].

Alternative U.S. EPA-approved test methods not specified in the above-mentioned Subparts may be used with prior approval from the Ohio EPA.

d. In accordance with 63.1959(f) of Subpart AAAA, the tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Southwest Ohio Air Quality Agency, and the permittee shall record process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent normal operations.

e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an “Intent to Test” notification to the Southwest Ohio Air Quality Agency. The “Intent to Test” notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s)of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Southwest Ohio Air Quality Agency refusal to accept the results of the emission test(s).

f. Personnel from the Southwest Ohio Air Quality Agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

g. A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Southwest Ohio Air Quality Agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Southwest Ohio Air Quality Agency.

g) Miscellaneous Requirements

(1) This emission unit involves the use of a gas recovery plants (Plant 3) with thermal oxidizer (TOX) unit and one enclosed flare off-spec gas combustor shared. The Gas Recovery Plant results in LFG recovery with the use of a thermal oxidizer for control of exhaust streams from the various LFG refining stages and the use of an off-spec gas combustor for typically discharging off-spec gas on an intermittent basis. The offspec gas combustor is only used for destruction of raw LFG in the event of the shutdown of the gas recovery plant, operational considerations, or poor gas quality (off-spec processed gas). When an enclosed flare off-spec gas combustor is only used for the destruction of raw LFG, this operating scenario constitutes the NSPS Enclosed Combustors Option. For purposes of compliance with 40 CFR Subpart XXX, the thermal oxidizer and the off-spec gas combustor are defined as “enclosed combustors” per 40 CFR 60.751 and 40 CFR 60.761.

2. P004, LFG Collection System

Operations, Property and/or Equipment Description:

Landfill flare system

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Hourly Emissions from P004 shall not exceed the following: NMOC emissions shall not exceed 3.83 lbs/hr; CO emissions shall not exceed 123.44 lbs/hr; PE shall not exceed 7.3 lbs/hr; PM_{10} emissions shall not exceed 7.3 lbs/hr; $PM_{2.5}$ emissions shall not exceed 7.3 lbs/hr; NOx emissions shall not exceed 26.0 lbs/hr; SO_2 emissions shall not exceed 6.7 lbs/hr; HCl emissions shall not exceed 10.3 lbs/hr; HF emissions shall not exceed 1.7 lbs/hr; Annual Emissions from P003 and P004, combined, shall not exceed the following: NMOC emissions shall not exceed 16.79 TPY;

		PE shall not exceed 31.87 TPY; PM_{10} emissions shall not exceed 31.87 TPY;* $PM_{2.5}$ emissions shall not exceed 31.87 TPY; NOx emissions shall not exceed 113.83 TPY;* SO_2 emissions shall not exceed 29.3 TPY; HCl emissions shall not exceed 45.18 TPY; HF emissions shall not exceed 7.28 TPY; Fluorotrichloromethane (CFC-11) emissions shall not exceed 0.02 TPY;* Dichlorodifluoromethane (CFC-12) emissions shall not exceed 0.37 TPY;* and Methane emissions shall not exceed 1563 TPY. See b)(2)f. and b)(2)g. The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D) in b)(1)c., below.
b.	OAC rules 3745-31-11 through 3745-31-20 *Prevention of Significant Deterioration (PSD)*	The pollutant emission limitations asterisked above are subject to the requirements of these rules.
c.	OAC rule 3745-31-05(D) *Federally Enforceable Emissions Limitation to Avoid PSD Requirements*	See Section B.4. through B.8.
d.	OAC rule 3745-17-07(A)	The limitation associated with this rule is less stringent than the visible emission limitation established in accordance with 40 CFR 60.18. See b)(2)e.
e.	40 CFR Part 60, Subpart XXX [40 CFR Part 60.760-769]	See b)(2)a., b)(2)b., b)(2)e., b)(2)h., and c)(1).

	Standards of Performance for Municipal Solid Waste (MSW) Landfills that Commenced Construction, Reconstruction, or Modification After July 17, 2014 [Pursuant to 60.760(a) and 60.762(b), the landfill expansion project (authorized by PTI #P0124272 issued to Rumpke Sanitary Landfill, Inc. under Facility ID 1431092049) commenced on 10/23/2019, therefore, this emissions unit is associated with a MSW landfill that commenced modification after July 17, 2014, that has a design capacity greater than 2.5 million Mg and 2.5 million m3, and has NMOC emissions equal to or exceeding 34 Mg/yr, therefore, this emissions unit is subject to the emission limitations and control measures specified in 40 CFR Part 60, Subpart XXX.]	
f.	40 CFR Part 63, Subpart AAAA [40 CFR 63.1930-1990] *National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills* [In accordance with 63.1935(a) and 63.1940, this emissions unit is associated with an existing affected MSW landfill.]	See b)(2)c., b)(2)d., b)(2)i., and c)(2).
g.	40 CFR 63.1-15 [40 CFR 63.1930-1990]	Table 1 to Subpart AAAA of Part 63 – Applicability of General Provisions to Subpart AAAA shows which parts of the General Provisions in 40 CFR 63.1-15 apply.
h.	40 CFR 60.18(c)(1) 40 CFR 63.11(b)(4)	See b)(2)b., b)(2)e., and c)(1).

(2) Additional Terms and Conditions

a. The permittee shall comply with the applicable restrictions under 40 CFR Part 60, Subparts A and XXX, including the following sections:

60.762(b)(2)(i)	Collection and control system design plan requirements
60.762(b)(2)(ii)	Collection and control system installation
60.762(b)(2)(iii)	Route all collected gas to a control system [see b)(2)b. below]
60.762(b)(2)(iv)	Operation of the collection and control device(s) in accordance with 60.763, 60.765, and 60.766 or the provisions of 40 CFR 63.1958, 63.1960, and 63.1961. Once the permittee begins to comply with the provisions of 40 CFR 63.1958, 63.1960, and 63.1961, the permittee shall continue to operate the collection and control device according to those provisions and cannot return to the provisions of 40 CFR 60.763, 60.765, and 60.766.*
60.762(b)(2)(v)(A) through (C)	Provisions for capping or removal of collection and control system
60.769(c)	Specifications for control equipment for active collection systems

**On 2/23/2021, the permittee submitted notification of compliance with the provisions of the NESHAP 40 CFR Part 63 Subpart AAAA in lieu of compliance with the provisions of NSPS Subpart XXX as provided in 60.762(b)(2)(iv) above, effective 1/1/2021. Therefore, the permittee shall comply with these provisions as specified in PTI P0125062.*

b. Pursuant to 60.762(b)(2)(iii), the permittee shall route all the collected gas to a control system that complies with the requirements in either i., ii., or iii. below:

i. A non-enclosed flare designed and operated in accordance with 40 CFR 60.18 except as noted in 60.764(e);

ii. A control system designed and operated to reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control to either reduce NMOC by 98 weight-percent or reduce the outlet NMOC concentration to less than 20 parts per million (ppm) by volume, dry basis as hexane at 3 percent oxygen. The reduction efficiency or ppm by volume shall be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using test methods specified in 60.764(d). The performance test is not required for boilers and process heaters with design heat input capacities equal to or greater than 44 megawatts that burn landfill gas for compliance with this subpart;

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

(b) The control device shall be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in 60.766.*

iii. A treatment system that processes the collected gas for subsequent sale or beneficial use such as fuel for combustion, production of vehicle fuel, production of high-Btu gas for pipeline injection, or use as a raw material in a chemical manufacturing process. Venting of treated landfill gas to the ambient air is not allowed. If the treated landfill gas cannot be routed for subsequent sale or beneficial use, then the treated landfill gas must be controlled according to the requirements of 60.762(b)(2)(iii)(A) or (B).

iv. All emissions from an atmospheric vent from the gas treatment system are subject to the requirements of paragraph (b)(2)(iii)(A) or (B) of this section. For purposes of this subpart, atmospheric vents located on the condensate storage tank are not part of the treatment system and are exempt from the requirements of paragraph (b)(2)(iii)(A) or (B) of this section.

*as specified in 40 CFR 63.1961, in lieu of 60.766.

c. The permittee shall comply with the applicable requirements under 40 CFR Part 63, Subpart AAAA, including the following sections:

63.1930(b)	Beginning no later than September 27, 2021, all landfills described in §63.1935 must meet the requirements of this subpart. A landfill may choose to meet the requirements of this subpart rather than the requirements identified in §63.1930(a) at any time before September 27, 2021*. The requirements of this subpart apply at all times, including during periods of SSM, and the SSM requirements of the General Provisions of this part do not apply. **the permittee shall comply with the requirements of this subpart effective 1/1/2021 [ref. b)(2)a. above].*
63.1955(c)	Requirements for sources with collection and control system(s) – general duty to maintain equipment and minimize emissions
63.1957(a)	Operation of the collection and control device(s) in accordance with 63.1958, 63.1960, and 63.1961.
63.1957(b)	Provisions for capping or removal of collection and control system
63.1959(b)(2)(i)	Collection and control system design plan requirements
63.1959(b)(2)(ii)	Collection and control system installation
63.1959(b)(2)(ii)(B)(1) through (4)	Active collection system requirements

63.1959(b)(2)(iii)	Route all collected gas to a control system [see b)(2)d. below]
63.1962	Specifications for active collection systems

d. Pursuant to 63.1959(b)(2)(iii), the permittee shall route all the collected gas to a control system that complies with the requirements in either i., ii., or iii. below:

i. A non-enclosed flare designed and operated in accordance with the parameters established in 40 CFR 63.11(b) except as noted in 63.1959(e);

ii. A control system designed and operated to reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control to either reduce NMOC by 98 weight-percent or reduce the outlet NMOC concentration to less than 20 ppm by volume, dry basis as hexane at 3 percent oxygen. The reduction efficiency or ppm by volume shall be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using test methods specified in 63.1959(d). The performance test is not required for boilers and process heaters with design heat input capacities equal to or greater than 44 megawatts that burn landfill gas for compliance with this subpart;

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

(b) The control device shall be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in 63.1961(b) through (e).

iii. A treatment system that processes the collected gas for subsequent sale or beneficial use such as fuel for combustion, production of vehicle fuel, production of high-Btu gas for pipeline injection, or use as a raw material in a chemical manufacturing process. Venting of treated landfill gas to the ambient air is not allowed. If the treated landfill gas cannot be routed for subsequent sale or beneficial use, then the treated landfill gas must be controlled according to the requirements of 63.1959(b)(2)(iii)(A) or (B).

e. There shall be no visible emissions from an open flare, except for periods not to exceed 5 minutes during any 2 consecutive hours, as outlined in 40 CFR 60.18.

f. Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the visible particulate emission limitations, a properly designed and operated landfill gas collection system and a control system capable of reducing NMOC in the collected gas by 98% or an outlet concentration of 20 ppmv hexane at 3% oxygen, compliance with 40 CFR Part 60, Subpart XXX and 40 CFR Part 63, Subpart AAAA.

g. The hourly emission limitations are based upon the emissions unit's potential to emit. Therefore, no additional monitoring, record keeping or reporting requirements are required to demonstrate compliance with these emission limitations.

h. The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 60 are also federally enforceable.

i. The application and enforcement of the provisions of the National Emission Standards for Hazardous Air Pollutants (NESHAP), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 63, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 63 are also federally enforceable.

c) Operational Restrictions

(1) The permittee shall comply with the applicable restrictions under 40 CFR Part 60, Subparts A and XXX, including the following sections:

60.762(b)(2)(iii)(A) and 60.18(c)(1) – (6), 60.18(d) and (e)	Flare specifications, design, and operating requirements

(2) The permittee shall comply with the applicable requirements under 40 CFR Part 63, Subpart AAAA, including the following sections:

63.1958(e) and (f)	Overall collection and control system operating and shutdown requirements
63.1960(e)	Startup, shutdown, and malfunction provisions and time period limitations

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall comply with the applicable monitoring and recordkeeping requirements in 40 CFR Part 60, Subpart XXX, including the following sections:

60.768(b)(4)	Record keeping requirements for control equipment
60.768(e) and (e)(6)	Record keeping requirements for the date when the owner or operator started complying with the provisions of 40 CFR 63.1958, 63.1960, and 63.1961
60.768(i)	Record retention requirements

(2) The permittee shall collect and record the following information for each day:

a. all periods during which there was no pilot flame or flare flame, when the emissions unit was in operation; and

b. the downtime for the flare and monitoring equipment when the collection and control system was in operation.

(3) The permittee shall comply with the applicable monitoring and record keeping requirements under 40 CFR Part 63, Subpart AAAA, including the following sections:

63.1958(g)	Overall monitoring and corrective action requirements
63.1961(c)	Monitoring requirements for non-enclosed flares
63.1961(g)	Monitoring requirements for landfill gas treatment system
63.1961(h)	General monitoring system operating requirements
63.1964(a) and (b)	SSM plan recordkeeping requirements
63.1983	Record keeping requirements as specified in 40 CFR Part 63 Subpart A and Table 1 of Subpart AAAA
63.1983(b)	Record keeping requirements for control system equipment
63.1983(c)	Record keeping requirements for equipment operating parameters.
63.1983(e)	Record keeping requirements for exceedances of operational standards in 63.1958
63.1983(g)	Each owner or operator subject to the provisions of 40 CFR Part 63, Subpart AAAA 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 40 CFR 63.1961(a)(1) through (6), except as provided in 40 CFR Part 63.1981(d)(2).
63.1983(i)	Any records required to be maintained that are submitted electronically may be maintained in electronic format.

(4) The permittee shall maintain records which document the annual CO, PE, PM_{10}, $PM_{2.5}$, NOx, SO_2, HCl, HF and methane emissions for this emissions unit.

e) Reporting Requirements

(1) The permittee shall submit notifications and reports to the appropriate Ohio EPA District office as required pursuant to 40 CFR Part 60, Subparts A and XXX, per the following sections:

60.767(b)(3)	NMOC reporting exemption for collection and control systems
60.767(c)	Collection and control system design plan submission requirements
60.767(f)	Each owner or operator of a controlled landfill shall submit an equipment removal report 30 days prior to removal or cessation of operation of the control equipment. The equipment removal report shall contain all of the items in 40 CFR 60.767(f).
60.767(g)	Each owner or operator of a landfill seeking to comply with 40 CFR 60.762(b)(2) using an active collection system designed in accordance with 40 CFR 60.762(b)(2)(ii) shall submit annual reports of the recorded information in 40 CFR 60.767(g)(1) through (g)(7). The initial annual report shall be submitted within 180 days of installation and start-up of the collection and control system, and shall include the initial performance test report required under 40 CFR 60.8.
60.767(h)	Each owner or operator seeking to comply with 40 CFR 60.762(b)(2)(iii) shall include the information in 40 CFR 60.767(h) with the initial performance test report required under 40 CFR 60.8.
60.767(i)	The owner or operator must submit reports electronically according to 40 CFR 60.767(i)(1) and (i)(2).
60.767(j)	The owner or operator must submit corrective actions and corresponding timelines according to 40 CFR 60.767(j)(1) and (j)(2).

(2) The permittee shall comply with the applicable reporting requirements under 40 CFR Part 63, Subpart AAAA, including the following sections:

63.1965(a) – (c)	Deviation definition and SSM plan requirements
63.1981	Reporting requirements as specified in 40 CFR Part 63, Subpart A and Table 1 of Subpart AAAA
63.1981(c)(3)	NMOC reporting exemption for collection and control systems

63.1981(d)	Collection and control system design plan submission requirements
63.1981(e)	Revised collection and control system design plan submission requirements
63.1981(f)	Landfill closure reporting requirements
63.1981(g)	Equipment removal reporting requirements
63.1981(h) and 63.1955(a)	Semi-annual reporting requirements
63.1981(i)	Each owner or operator seeking to comply with 40 CFR 63.1959(b)(2)(iii) shall include the information in 40 CFR 63.1981(i) with the initial performance test report required under 40 CFR 63.7.
63.1981(j)	The owner or operator must submit corrective actions and corresponding timelines according to 40 CFR 63.1981(j)(1) and (j)(2).
63.1981(l)	The owner or operator must submit reports electronically according to 40 CFR 63.1981(l)(1) and (l)(2).
63.1981(m)	Claims of U.S. EPA system outage requirements
63.1981(n)	Claims of force majeure requirements

(3) The permittee shall submit quarterly deviation (excursion) reports that include the following information:

a. all periods when the gas stream is diverted from the control device or recovery system through a bypass line or the indication of bypass flow or any record which indicates that the bypass line valve was not maintained in the closed position;

b. a listing of all days when visible emissions were present at the open flare and the corrective actions taken to eliminate the visible emissions;

c. all periods of time during which the flare pilot flame or the flare flame was not present (the reports shall include the date, time, and duration of each such period) when the emissions unit was in operation;

d. the description and duration of all periods when the recovery and treatment system was not operating for a period exceeding 1 hour and the length of time the recovery and treatment system was not operating.

The quarterly reporting requirement above may be more stringent than annual reporting requirements specified in 40 CFR Part 60, Subpart XXX, and semi-annual reporting requirements specified in 40 CFR Part 63, Subpart AAAA. The permittee shall comply with all applicable reporting requirements, including any less stringent requirements.

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

(4) The permittee shall submit annual reports that specify the total NMOC, CO, PE, PM_{10}, $PM_{2.5}$, NOx, SO_2, HCl, HF, methane emissions from this emissions unit for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific data for this emissions unit in the annual Fee Emission Report.

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control to either reduce NMOC by 98 weight-percent or reduce the outlet NMOC concentration to less than 20 ppm by volume, dry basis as hexane at 3 percent oxygen.

Applicable Compliance Method:

Compliance shall be demonstrated by compliance with the monitoring and testing requirements of 40 CFR Part 60, Subpart XXX and 40 CFR Part 63, Subpart AAAA, as specified in d)(1) and d(3), and f)(2) – f)(3), below.

b. Emission Limitation:

There shall be no visible emissions from an open flare, except for periods not to exceed 5 minutes during any 2 consecutive hours, as outlined in 40 CFR 60.18.

Applicable Compliance Method:

Compliance shall be determined through visible emissions observations performed in accordance with Method 22 of 40 CFR Part 60, Appendix A, and 40 CFR Part 60, Subparts A and XXX [see f)(2) and f)(3) below].

c. Emissions Limitations:

Hourly Emissions from P004 shall not exceed the following:

NMOC emissions shall not exceed 3.83 lbs/hr;

CO emissions shall not exceed 123.44 lbs/hr;

PE emissions shall not exceed 7.3 lbs/hr;

PM_{10} emissions shall not exceed 7.3 lbs/hr;

$PM_{2.5}$ emissions shall not exceed 7.3 lbs/hr;

NOx emissions shall not exceed 26 lbs/hr;

SO_2 emissions shall not exceed 6.7 lbs/hr;

HCl emissions shall not exceed 10.3 lbs/hr;

HF emissions shall not exceed 1.7 lbs/hr;

Annual Emissions from P003 and P004, combined shall not exceed the following:

NMOC emissions shall not exceed 16.79 TPY;

PE shall not exceed 31.87 TPY;

PM_{10} emissions shall not exceed 31.87 TPY;*

$PM_{2.5}$ emissions shall not exceed 31.87 TPY;

NOx emissions shall not exceed 113.83 TPY;*

SO_2 emissions shall not exceed 29.3 TPY;

HCl emissions shall not exceed 45.18 TPY;

HF emissions shall not exceed 7.28 TPY;

Fluorotrichloromethane (CFC-11) shall not exceed 0.02 TPY;

Dichlorodifluoromethane (CFC-12) shall not exceed 0.37 TPY;

Methane emissions shall not exceed 1563 TPY.

Applicable Compliance Method:

The hourly emission limitations represent the emission unit's potential to emit based upon emission factors, control efficiencies (if applicable), and the operational parameters as submitted in PTI application A0061577 (September 14, 2018), including US EPA's Landfill Gas Emissions Model along with AP-42, Section 2.4.

Where applicable, the actual emission rates shall be calculated from the results of the most recent stack test which demonstrated compliance using test methods in accordance with 40 CFR Part 60, Appendix A, or alternative US EPA-approved test methods with prior approval of Ohio EPA. See f)(2) – f)(3).

The annual emission limitations are based upon emission factors, control efficiencies (if applicable), and the operational parameters as submitted in PTI application A0061577 (September 14, 2018), including US EPA's Landfill Gas Emissions Model along with AP-42, Section 2.4.

(2) The permittee shall comply with the applicable testing requirements under 40 CFR Part 60, Subparts A and XXX, including the following sections:

60.764(b)	NMOC emission rate calculation for equipment removal
60.764(c)	NMOC emission rate determination for PSD

60.762(b)(2)(iii)(A), 60.764(e), and 60.18(f)	Performance test and test method requirements for open flare(s)

(3) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing for the open flares shall follow the schedule specified in the Title V PTO and shall be conducted approximately 2.5 years after the issuance of that permit.

b. The emission testing for the open flares shall be conducted to demonstrate compliance with the performance requirements, which includes the requirements of 40 CFR Part 63, Subpart AAAA in b)(2)d., 40 CFR Part 60, Subpart XXX in b)(2)b., and the visible emission limitation specified in b)(2)e.

c. Visible emission testing of open flares shall be conducted in accordance with the methods specified in Method 22 of 40 CFR Part 60, Appendix A, including 60.18(f) and 40 CFR Part 60, Subpart XXX, and 40 CFR Part 63, Subpart AAAA [See f)(2) above].

d. In accordance with 63.1959(f) of Subpart AAAA, the tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Southwest Ohio Air Quality Agency, and the permittee shall record process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent normal operations.

e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Southwest Ohio Air Quality Agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s)of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Southwest Ohio Air Quality Agency refusal to accept the results of the emission test(s).

f. Personnel from the Southwest Ohio Air Quality Agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

g. A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Southwest Ohio Air Quality Agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Southwest Ohio Air Quality Agency.

g) Miscellaneous Requirements

(1) This emission unit involves the use of open utility flares with a total combined LFG flow rate of 11,000 acfm for LFG destruction in the event of the gas recovery plants being shut down or poor gas quality. The Utility Flare Option results in no LFG recovery, only full destruction of collected LFG. For purposes of compliance with 40 CFR 60 Subpart XXX, the utility flare is defined as a "flare" and is not considered an "enclosed combustor" under 40 CFR 60.761.

3. Emissions Unit Group - Gas Recovery Plants #1 and #2: P001 and P002

EU ID	Operations, Property and/or Equipment Description
P001	2,190 mmscf/year Landfill Gas Recovery Process; Gas Plant #1
P002	1,095 mmscf/year Landfill Gas Recovery Process; Gas Plant #2

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Emissions from P001 and P002, combined, shall not exceed the following: NMOC emissions shall not exceed 8.50 lbs/hr and 34.65 TPY; CO emissions shall not exceed 25.83 lbs/hr; PE emissions shall not exceed 6.76 lbs/hr and 21.89 TPY; PM_{10} emissions shall not exceed 6.76 lbs/hr and 21.89 TPY; $PM_{2.5}$ emissions shall not exceed 6.76 lbs/hr and 21.89 TPY; NOx emissions shall not exceed 11.86 lbs/hr and 31.90 TPY; SO_2 emissions shall not exceed 3.42 lbs/hr and 7.11 TPY; HCl emissions shall not exceed 25.62 TPY;

		HF emissions shall not exceed 3.28 TPY; and Methane emissions shall not exceed 599 TPY. The annual emissions include the emissions from the off-spec gas combustor. See b)(2)e., b)(2)f., b)(2)g., c)(1), and c)(2). The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D) in b)(1)b., below.
b.	OAC rule 3745-31-05(D) *Federally Enforceable Restrictions to Avoid PSD Requirements*	See Section B.4. through B.8.
c.	OAC rule 3745-17-07(A)	The limitation associated with this rule is less stringent than the visible emission limitation established in accordance with OAC rule 3745-31-05(A)(3).
d.	40 CFR Part 60, Subpart XXX [40 CFR Part 60.760-769] *Standards of Performance for Municipal Solid Waste (MSW) Landfills that Commenced Construction, Reconstruction, or Modification After July 17, 2014* [Pursuant to 60.760(a) and 60.762(b), the landfill expansion project (authorized by PTI #P0124272 issued to Rumpke Sanitary Landfill, Inc. under Facility ID 1431092049) commenced on 10/23/2019, therefore, these emissions units are associated with a MSW landfill that commenced modification after July 17, 2014, that has a design capacity greater than 2.5 million Mg and 2.5 million m^3, and has NMOC emissions equal to or exceeding 34 Mg/yr, therefore, these emissions units are subject to the emission limitations and control	See b)(2)a., b)(2)b., b)(2)h., and c)(2).

	measures specified in 40 CFR Part 60, Subpart XXX.]	
e.	40 CFR Part 63, Subpart AAAA [40 CFR 63.1930-1990] *National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills* [In accordance with 63.1935(a) and 63.1940, these emissions units are associated with an existing affected MSW landfill.]	See b)(2)c., b)(2)d., b)(2)i., c)(2), and c)(3).
f.	40 CFR 63.1-15 [40 CFR 63.1930-1990]	Table 1 to Subpart AAAA of Part 63 – Applicability of General Provisions to Subpart AAAA shows which parts of the General Provisions in 40 CFR 63.1-15 apply.

(2) Additional Terms and Conditions

a. The permittee shall comply with the applicable requirements under 40 CFR Part 60, Subpart XXX, including the following sections:

60.762(b)(2)(i)	Collection and control system design plan requirements
60.762(b)(2)(ii)	Collection and control system installation
60.762(b)(2)(iii)	Route all collected gas to a control system [see b)(2)b. below]
60.762(b)(2)(iv)	Operation of the collection and control device(s) in accordance with 60.763, 60.765, and 60.766 or the provisions of 40 CFR 63.1958, 63.1960, and 63.1961. Once the permittee begins to comply with the provisions of 40 CFR 63.1958, 63.1960, and 63.1961, the permittee shall continue to operate the collection and control device according to those provisions and cannot return to the provisions of 40 CFR 60.763, 60.765, and 60.766.*
60.762(b)(2)(v)(A) through (C)	Provisions for capping or removal of collection and control system
60.769(c)	Specifications for control equipment for active collection systems

**On 2/23/2021, the permittee submitted notification of compliance with the provisions of the NESHAP 40 CFR Part 63 Subpart AAAA in lieu of compliance with the provisions of NSPS Subpart XXX as provided in 60.762(b)(2)(iv) above, effective 1/1/2021. Therefore, the permittee shall comply with these provisions as specified in this permit.*

b. Pursuant to 60.762(b)(2)(iii), the permittee shall route all the collected gas to a control system that complies with the requirements in either i., ii., or iii. below:

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

ii. A control system designed and operated to reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control to either reduce NMOC by 98 weight-percent or reduce the outlet NMOC concentration to less than 20 ppm by volume, dry basis as hexane at 3 percent oxygen. The reduction efficiency or ppm by volume shall be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using test methods specified in 60.764(d). The performance test is not required for boilers and process heaters with design heat input capacities equal to or greater than 44 megawatts that burn landfill gas for compliance with this subpart;

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

(b) The control device shall be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in 60.766.*

iii. A treatment system that processes the collected gas for subsequent sale or beneficial use such as fuel for combustion, production of vehicle fuel, production of high-Btu gas for pipeline injection, or use as a raw material in a chemical manufacturing process. Venting of treated landfill gas to the ambient air is not allowed. If the treated landfill gas cannot be routed for subsequent sale or beneficial use, then the treated landfill gas must be controlled according to the requirements of 60.762(b)(2)(iii)(A) or (B).

iv. All emissions from an atmospheric vent from the gas treatment system are subject to the requirements of 60.762(b)(2)(iii)(A) or (B). For purposes of this subpart, atmospheric vents located on the condensate storage tank are not part of the treatment system and are exempt from the requirements of 60.762(b)(2)(iii)(A) or (B).

*as specified in 40 CFR 63.1961, in lieu of 60.766.

c. The permittee shall comply with the applicable requirements under 40 CFR Part 63, Subpart AAAA, including the following sections:

63.1930(b)	Beginning no later than September 27, 2021, all landfills described in §63.1935 must meet the requirements of this subpart. A landfill may choose to meet the requirements

	of this subpart rather than the requirements identified in §63.1930(a) at any time before September 27, 2021*. The requirements of this subpart apply at all times, including during periods of SSM, and the SSM requirements of the General Provisions of this part do not apply. **the permittee shall comply with the requirements of this subpart effective 1/1/2021 [ref. b)(2)a. above].*
63.1955(c)	Requirements for sources with collection and control system(s) – general duty to maintain equipment and minimize emissions
63.1957(a)	Operation of the collection and control device(s) in accordance with 63.1958, 63.1960, and 63.1961.
63.1957(b)	Provisions for capping or removal of collection and control system
63.1959(b)(2)(i) and 63.1955(a)	Collection and control system design plan requirements
63.1959(b)(2)(ii)	Collection and control system installation
63.1959(b)(2)(ii)(B)(1) through (4)	Active collection system requirements
63.1959(b)(2)(iii)	Route all collected gas to a control system [see b)(2)d. below]
63.1962(c)	Specifications for control equipment for active collection systems

d. Pursuant to 63.1959(b)(2)(iii), the permittee shall route all the collected gas to a control system that complies with the requirements in either i., ii., or iii. below:

i. A non-enclosed flare designed and operated in accordance with the parameters established in 40 CFR 63.11(b) except as noted in 63.1959(e);

ii. A control system designed and operated to reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control to either reduce NMOC by 98 weight-percent or reduce the outlet NMOC concentration to less than 20 ppm by volume, dry basis as hexane at 3 percent oxygen. The reduction efficiency or ppm by volume shall be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using test methods specified in 63.1959(d). The performance test is not required for boilers and process heaters with design heat input capacities equal to or greater than 44 megawatts that burn landfill gas for compliance with this subpart;

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

(b) The control device shall be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in 63.1961(b) through (e).

iii. A treatment system that processes the collected gas for subsequent sale or beneficial use such as fuel for combustion, production of vehicle fuel, production of high-Btu gas for pipeline injection, or use as a raw material in a chemical manufacturing process. Venting of treated landfill gas to the ambient air is not allowed. If the treated landfill gas cannot be routed for subsequent sale or beneficial use, then the treated landfill gas must be controlled according to the requirements of 63.1959(b)(2)(iii)(A) or (B).

e. Visible particulate emissions from the stacks associated with each emissions unit shall not exceed 10% opacity, as a 6-minute average.

f. Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the visible particulate emission limitations, a properly designed and operated landfill gas collection system and a control system capable of reducing NMOC in the collected gas by 98% or an outlet concentration of 20 ppmv hexane at 3% oxygen, compliance with 40 CFR Part 60, Subpart XXX and 40 CFR Part 63, Subpart AAAA.

g. The hourly emission limitations are based upon the emissions unit's potential to emit. Therefore, no additional monitoring, record keeping or reporting requirements are required to demonstrate compliance with these emission limitations.

h. The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 60 are also federally enforceable.

i. The application and enforcement of the provisions of the National Emission Standards for Hazardous Air Pollutants (NESHAP), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 63, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 63 are also federally enforceable.

c) Operational Restrictions

(1) The maximum annual gas throughput for the off-spec gas flare (serving Plants 1 and 2) shall not exceed 67.64 million scf.

(2) Whenever any enclosed combustor(s) are in operation, the average combustion temperature for any 3-hour block of time shall be no more than 82 degrees Fahrenheit (28 degrees Celsius) below the average temperature during the most recent test which demonstrated compliance with b)(2)b. and b)(2)d.

(3) The permittee shall comply with the applicable requirements under 40 CFR Part 63, Subpart AAAA, including the following sections:

63.1958(e) and (f)	Overall collection and control system operating and shutdown requirements
63.1960(e)	Startup, shutdown, and malfunction provisions and time period limitations

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall operate and maintain a continuous gas flow monitor and recorder which measures and records the total gas flow to the off-spec gas flare (serving Plants 1 and 2) when the emissions unit is in operation. The gas flow monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals. The permittee shall collect and record the total volume of gas sent to the off-spec gas flare, in million scf, on an annual basis.

(2) The permittee shall comply with the applicable recordkeeping requirements in 40 CFR Part 60, Subpart XXX, including the following sections:

60.768(b)	Record keeping requirements for control equipment
60.768(b)(2)	Record keeping requirements for temperature and NMOC percent reduction of enclosed combustion device(s).
60.768(c)(1)(i)	Record keeping requirements for enclosed combustor temperature exceedances
60.768(e) and (e)(6)	Record keeping requirements for the date when the owner or operator started complying with the provisions of 40 CFR 63.1958, 63.1960, and 63.1961.
60.768(i)	Record retention requirements

(3) The permittee shall collect and record the following information for each day:

a. all 3-hour blocks of time during which the average combustion temperature within any enclosed combustor, when the emissions unit was in operation, was more than 82 degrees Fahrenheit (28 degrees Celsius) below the average temperature during the most recent test which demonstrated compliance with b)(2)b. and b)(2)d.; and

b. a log of the downtime for the capture (collection) system, control device and monitoring equipment when the associated emissions unit was in operation.

(4) The permittee shall comply with the applicable monitoring and record keeping requirements under 40 CFR Part 63, Subpart AAAA, including the following sections:

63.1975	Requirements for computation of 3-hour block averages
63.1958(g)	Overall monitoring and corrective action requirements
63.1961(c)	Monitoring requirements for non-enclosed flares
63.1961(b)	Monitoring requirements for enclosed combustors
63.1961(d)	Monitoring requirements for control devices other than an enclosed combustor or non-enclosed flare or treatment system
63.1961(g)	Monitoring requirements for landfill gas treatment system
63.1961(h)	General monitoring system operating requirements
63.1964(a) and (b)	SSM plan recordkeeping requirements
63.1983	Record keeping requirements as specified in 40 CFR Part 63 Subpart A and Table 1 of Subpart AAAA
63.1983(b)(2)	Record keeping requirements for enclosed combustors
63.1983(b)(5)	Record keeping requirements for treatment systems
63.1983(c)(1), (2), and (5) through (8)	Record keeping requirements for equipment operating parameters.
63.1983(e)(1)	Record keeping requirements for exceedances of operational standards in 63.1958
63.1983(g)	Each owner or operator subject to the provisions of 40 CFR Part 63, Subpart AAAA 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 40 CFR 63.1961(a)(1) through (6), except as provided in 40 CFR Part 63.1981(d)(2).
63.1983(i)	Any records required to be maintained that are submitted electronically may be maintained in electronic format.

(5) The permittee shall maintain records which document the annual CO, PE, PM_{10}, $PM_{2.5,}$ NOx, SO_2, HCl, HF and methane emissions for these emissions units.

e) Reporting Requirements

(1) The permittee shall submit notifications and reports to the appropriate Ohio EPA District office as required pursuant to 40 CFR Part 60, Subparts A and XXX, per the following sections:

60.767(b)(3)	NMOC reporting exemption for collection and control systems
60.767(c)	Collection and control system design plan submission requirements
60.767(d)	Revised collection and control system design plan submission requirements
60.767(f)	Each owner or operator of a controlled landfill shall submit an equipment removal report 30 days prior to removal or cessation of operation of the control equipment. The equipment removal report shall contain all of the items in 40 CFR 60.767(f).
60.767(g)	Each owner or operator of a landfill seeking to comply with 40 CFR 60.762(b)(2) using an active collection system designed in accordance with 40 CFR 60.762(b)(2)(ii) shall submit annual reports of the recorded information in 40 CFR 60.767(g)(1) through (g)(7). The initial annual report shall be submitted within 180 days of installation and start-up of the collection and control system and shall include the initial performance test report required under 40 CFR 60.8. If complying with the operational provisions of 40 CFR 63.1958, 63.1960, and 63.1961, as allowed at 40 CFR 60.762(b)(2)(iv), the permittee must follow the semi-annual reporting requirements in 40 CFR 63.1981(h) in lieu of this paragraph.
60.767(h)	Each owner or operator seeking to comply with 40 CFR 60.762(b)(2)(iii) shall include the information in 40 CFR 60.767(h) with the initial performance test report required under 40 CFR 60.8.
60.767(i)	The owner or operator must submit reports electronically according to 40 CFR 60.767(i)(1) and (i)(2).
60.767(j)	The owner or operator must submit corrective actions and corresponding timelines according to 40 CFR 60.767(j)(1) and (j)(2).

(2) The permittee shall comply with the applicable reporting requirements under 40 CFR Part 63, Subpart AAAA, including the following sections:

63.1965(a) – (c)	Deviation definition and SSM plan requirements
63.1981	Reporting requirements as specified in 40 CFR Part 63, Subpart A and Table 1 of Subpart AAAA
63.1981(c)(3)	NMOC reporting exemption for collection and control systems
63.1981(d)	Collection and control system design plan submission requirements

63.1981(e)	Revised collection and control system design plan submission requirements
63.1981(g)	Equipment removal reporting requirements
63.1981(h) and 63.1955(a)	Semi-annual reporting requirements
63.1981(i)	Each owner or operator seeking to comply with 40 CFR 63.1959(b)(2)(iii) shall include the information in 40 CFR 63.1981(i) with the initial performance test report required under 40 CFR 63.7.
63.1981(j)	The owner or operator must submit corrective actions and corresponding timelines according to 40 CFR 63.1981(j)(1) and (j)(2).
63.1981(l)	The owner or operator must submit reports electronically according to 40 CFR 63.1981(l)(1) and (l)(2).
63.1981(m)	Claims of U.S. EPA system outage requirements
63.1981(n)	Claims of force majeure requirements

(3) The permittee shall submit quarterly deviation (excursion) reports that include the following information:

a. an identification of each 3-hour block of time during which the average combustion temperature within the enclosed combustor, when the emissions unit was in operation, was more than 82 degrees Fahrenheit (28 degrees Celsius) below the average temperature during the most recent test which demonstrated compliance with b)(2)b. and b)(2)d.

b. all periods when the gas stream is diverted from the control device or recovery system through a bypass line or the indication of bypass flow or any record which indicates that the bypass line valve was not maintained in the closed position;

c. the description and duration of all periods when the recovery and treatment system was not operating for a period exceeding 1 hour and the length of time the recovery and treatment system was not operating.

The quarterly reporting requirement above may be more stringent than annual reporting requirements specified in 40 CFR Part 60, Subpart XXX, and semi-annual reporting requirements specified in 40 CFR Part 63, Subpart AAAA. The permittee shall comply with all applicable reporting requirements, including any less stringent requirements.

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

(4) The permittee shall submit annual reports that specify the total amount of gas throughput in the off-spec gas flare (for Plants 1 and 2), in million scf. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific data for the emissions units in the annual Fee Emission Report.

(5) The permittee shall submit annual reports that specify the total NMOC, CO, PE, PM_{10}, $PM_{2.5}$, NOx, SO_2, HCl, HF, and methane emissions from these emissions units for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific data for the emissions unit in the annual Fee Emission Report.

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control to either reduce NMOC by 98 weight-percent or reduce the outlet NMOC concentration to less than 20 ppm by volume, dry basis as hexane at 3 percent oxygen.

Applicable Compliance Method:

Compliance shall be demonstrated by compliance with the monitoring and testing requirements of 40 CFR Part 60, Subpart XXX and 40 CFR Part 63, Subpart AAAA as specified in d)(2) - d)(4), and f)(2) - f)(4) below.

b. Emission Limitation:

Visible particulate emissions from the stacks associated with each emissions unit shall not exceed 10% opacity, as a 6-minute average.

Applicable Compliance Method:

Compliance with these emission limitations shall be determined through visible emissions observations performed in accordance with Method 9 of 40 CFR Part 60, Appendix A.

No visible emissions observations are specifically required to demonstrate compliance with this emission limitation but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A).

c. Emissions Limitations:

Emissions from Gas Recovery Plants 1 and 2 stack emissions shall not exceed the following:

NMOC emissions shall not exceed 8.50 pounds per hour and 34.65 TPY;

CO emissions shall not exceed 25.83 pounds per hour;

PE emissions shall not exceed 6.76 pounds per hour and 21.89 TPY;

PM_{10} emissions shall not exceed 6.76 pounds per hour and 21.89 TPY;

$PM_{2.5}$ emissions shall not exceed 6.76 pounds per hour and 21.89 TPY;

NOx emissions shall not exceed 11.86 pounds per hour and 31.90 TPY;

SO_2 emissions shall not exceed 3.42 pounds per hour and 7.11 TPY;

Methane emissions shall not exceed 599 TPY;

HCl emissions shall not exceed 25.62 TPY; and

HF emissions shall not exceed 3.28 TPY.

Applicable Compliance Method:

The hourly emission limitations represent the emission unit's potential to emit based upon emission factors, control efficiencies (if applicable), and the operational parameters as submitted in PTI application A0069738 (October 15, 2021), including US EPA's Landfill Gas Emissions Model along with AP-42, Section 2.4.

Where applicable, the actual emission rates shall be calculated from the results of the most recent stack test which demonstrated compliance using test methods in accordance with 40 CFR Part 60, Appendix A, or alternative US EPA-approved test methods with prior approval of Ohio EPA. See f)(2) - f)(4).

The annual emission limitations are based upon Plant 1 and Plant 2 operating 8,760 hours per year and include compliance with the annual gas flow limitation to the off-spec gas flare, which is determined by the record keeping requirements in d)(1). Therefore, provided that the permittee complies with the hourly emission limitations and the gas limitation to the off-spec gas flare, compliance with the annual emission limitations will also be demonstrated.

(2) The permittee shall comply with the applicable testing requirements under 40 CFR Part 60, Subparts A and XXX, including the following sections:

60.764(b)	NMOC emission rate calculation for equipment removal
60.764(c)	NMOC emission rate determination for PSD
60.762(b)(2)(iii)(B) and 60.764(d)	Performance test and test method requirements for enclosed combustor(s)

(3) The permittee shall comply with the applicable testing requirements under 40 CFR Part 63, Subparts A and AAAA, including the following sections:

63.1959(c)	NMOC emission rate calculation for equipment removal
63.1959(b)(2)(iii)(B), 63.1959(d), and 63.1959(f)	Performance test and test method requirements for enclosed combustor(s)

(4) The permittee shall conduct, or have conducted, emission testing for these emissions units in accordance with the following requirements:

a. The emission testing for Plant 1 and Plant 2 shall follow the schedule specified in the Title V PTO and shall be conducted approximately 2.5 years after the issuance of that permit.

b. The emission testing for Plant 1 and Plant 2 (which includes thermal oxidizers) shall be conducted to demonstrate compliance with the NMOC hourly emission limitation specified in b)(1)a., and compliance with the control efficiency requirements of 40 CFR Part 63, Subpart AAAA in b)(2)d., and 40 CFR Part 60, Subpart XXX in b)(2)b.

c. The following test methods shall be employed to demonstrate compliance with the NMOC (lbs/hr) emission limitation and the control system efficiency requirements:

i. Methods 1 through 4 and 25, 25A, 25C or Method 18, as appropriate, as specified in 40 CFR Part 60, Appendix A; and

ii. Any required test method variations or alternative procedures as specified in 60.764(d) of 40 CFR Part 60, Subpart XXX [see f)(2) above] and in 63.1959(d) of 40 CFR Part 63, Subpart AAAA [see f)(3) above].

Alternative U.S. EPA-approved test methods not specified in the above-mentioned Subparts may be used with prior approval from the Ohio EPA.

d. In accordance with 63.1959(f) of Subpart AAAA, the tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Southwest Ohio Air Quality Agency, and the permittee shall record process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent normal operations.

e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an “Intent to Test” notification to the Southwest Ohio Air Quality Agency. The “Intent to Test” notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s)of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Southwest Ohio Air Quality Agency refusal to accept the results of the emission test(s).

f. Personnel from the Southwest Ohio Air Quality Agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

g. A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Southwest Ohio Air Quality Agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Southwest Ohio Air Quality Agency.

g) Miscellaneous Requirements

(1) Emissions from gas plant #1 and #2 (P001 and P002) include emissions from two thermal oxidizer (TOX) units and one off-spec gas flare. The off-spec gas flare is used only for destruction of off-spec processed gas and not unprocessed landfill gas. For purposes of compliance with 40 CFR 60 Subpart XXX, only the thermal oxidizers are defined as "enclosed combustors" per 40 CFR 60.761.