Ohio Environmental Protection Agency

Mike DeWine, Governor
Jon Husted, Lt. Governor
Laurie A. Stevenson, Director

07/27/2021

Certified Mail

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

Ann Marie Johnson
Sunny Farms Landfill
12500 West County Road 18
Fostoria, OH 44830

RE: DRAFT AIR POLLUTION PERMIT-TO-INSTALL
Facility ID: 0374010199
Permit Number: P0128797
Permit Type: Administrative Modification
County: Seneca

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 (EPA) Weekly Review and the local newspaper, The Advertiser Tribune. A copy of the public notice and the draft permit are enclosed. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab. 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:

Andrew Hall
Permit Review/Development Section
Ohio EPA, DAPC
50 West Town Street, Suite 700
P.O. Box 1049
Columbus, Ohio 43216-1049

and

Ohio EPA DAPC, Northwest District Office
347 North Dunbridge Rd.
Bowling Green, OH 43402

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published in the newspaper. 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 Ohio EPA DAPC, Northwest District Office at (419)352-8461.

Sincerely,

Michael E. Hopkins, P.E.
Assistant Chief, Permitting Section, DAPC

cc: U.S. EPA Region 5 - *Via E-Mail Notification*
Ohio EPA-NWDO; Michigan; Canada

STAFF DETERMINATION FOR THE APPLICATION TO CONSTRUCT UNDER THE PREVENTION OF SIGNIFICANT DETERIORATION REGULATIONS FOR SUNNY FARMS LANDFILL FOSTORIA, OHIO (SENECA COUNTY) PERMIT NUMBER P0128797

Ohio Environmental Protection Agency
Division of Air Pollution Control
Lazarus Government Center
50 West Town St., Suite 700
Columbus, Ohio 43215

The Clean Air Act and regulations promulgated thereunder require that major air pollution sources undergoing construction or modification comply with all applicable Prevention of Significant Deterioration (PSD) provisions and nonattainment area New Source Review (NSR) requirements. The federal PSD rules govern emission increases in attainment areas for major stationary sources, which are facilities with the potential to emit 250 tons per year or more of any pollutant regulated under the Clean Air Act, or 100 tons per year or more if the source is included in one of 28 source categories. In nonattainment areas, the definition of major stationary source is one having at least 100 tons per year potential emissions. A major modification is one resulting in a contemporaneous net increase in emissions which exceeds the significance level of one or more pollutants. Any changes in actual emissions within this five- or ten-year period are considered to be contemporaneous. In addition, Ohio has incorporated the PSD and NSR requirements by rule under Ohio Administrative Code (OAC) 3745-31, and currently has a program that is fully approved by USEPA. For $PM_{2.5}$, Ohio will have to use the requirements established in 40 CFR Part 51, Appendix S until the Ohio Administrative Code regulations are modified to include $PM_{2.5}$ emissions.

Both PSD and nonattainment NSR rules require that certain analyses be performed before a facility can obtain a permit authorizing construction of a new source or major modification to a major stationary source. The principal requirements of the PSD regulations are:

1) Best Available Control Technology (BACT) review - A detailed engineering review must be performed to ensure that BACT is being installed for the pollutants for which the new source is a major stationary source.

2) Ambient Air Quality Review - An analysis must be completed to ensure the continued maintenance of the National Ambient Air Quality Standards (NAAQS) and that any increases in ambient air pollutant concentrations do not exceed the incremental values set pursuant to the Clean Air Act.

For nonattainment areas, the requirements are:

1) Lowest Achievable Emission Rate (LAER)

   a) The most stringent emission limitation that is contained in the implementation plan of any state for such class or category of emissions unit, unless the owner or operator of the proposed emissions unit demonstrates that such limitations are not achievable; or,

   b) The most stringent emission limitation that is achieved in practice by such class or category of emissions unit.

   This limitation, when applied to a major modification, means lowest achievable emissions rate for the new or modified emissions units within the stationary source. In no event shall the application of this

term permit a proposed new or modified emissions unit to emit any air pollutant in excess of the allowable amount under applicable new source standards of performance.

2) Compliance certification

The applicant must certify that all existing major stationary sources owned or operated by the applicant (or any entity controlling, controlled by, or under common control with the applicant) in Ohio as the proposed major stationary source or major modification are in compliance with all applicable emission limitations and standards under the Clean Air Act (or are in compliance with an expeditious schedule which is federally enforceable or contained in a court decree).

Site/Facility Description

Sunny Farms Landfill is located in Fostoria, Ohio, Seneca County.

This area is classified as attainment or unclassifiable for all criteria pollutants: particulate matter 10 microns and less in diameter (PM_{10}), particulate matter 2.5 microns and less in diameter ($PM_{2.5}$), carbon monoxide (CO), nitrogen oxides (NOx), volatile organic compounds (VOC), sulfur dioxide (SO_2) and lead (Pb).

Sunny Farms Landfill is a solid waste disposal facility which currently accepts construction and demolition debris (C&DD) waste, municipal solid waste (MSW), and other wastes, as allowed per the approved MSW permits. Due to the natural decomposition of waste, primarily the C&DD, the facility began to experience odors at the facility in 2009. On July 26, 2019, Sunny Farms Landfill entered into a consent order and final judgment regarding the Sunny Farms Landfill's facility ("Sunny Farms Landfill Consent Order"). Pursuant to paragraph 15.A.g. of the Sunny Farms Landfill Consent Order, the facility was required to submit a permit application to administratively modify Permit to Install (PTI) P0116255, issued April 23, 2014. The facility is a major stationary source of multiple criteria and regulated pollutants for purposes of both PSD and Title V permitting.

Project Description

This permit action will also address requirements associated with major source review regulations, including a BACT analysis for SO_2 and hydrogen sulfide (H_2S) emissions as well as air dispersion modeling. Sunny Farms Landfill submitted a BACT Report and Final Air Dispersion Modeling Protocol. The BACT Report and Final Air Dispersion Modeling Protocol were approved on July 15, 2020 and will be memorialized through this permitting action. The emissions control equipment is required to be operational within 18 months following the final issuance of this PTI.

This PTI is to request approval to install permanent emissions control equipment to limit emissions of SO_2 and H_2S from the landfill. Sunny Farms Landfill is proposing to utilize a Merichem LO-CAT® H_2S removal system, a new enclosed flare and two landfill gas (LFG) blowers. The Merichem LO-CAT® H_2S removal system will be vented to the new enclosed flare, except during routine maintenance and repair activities. The Merichem LO-CAT® H_2S removal system is designed with a dual scrubber train to minimize the amount of downtime incurred due to routine maintenance and repair activities. During periods when only one scrubber train is operational, the remaining scrubber train will be utilized to the fullest extent possible. The remaining untreated gas will be vented to the existing 125-foot open flare. During periods of startup, shutdown and maintenance (SSM) on the enclosed flare, all untreated gas will be routed to the existing 125-foot open flare. The installation and operation of the emissions control equipment is essential for reducing the amount of SO_2 and H_2S emissions experienced at the landfill.

NSR/PSD Applicability

The proposed landfill design will generate NSR-regulated emissions of PM, PM_{10}, $PM_{2.5}$, CO, NOx, VOC, SO_2, H_2S and greenhouse gases (GHGs). A PSD analysis is required for pollutant emissions exceeding the PSD threshold levels. Nonattainment NSR is not applicable, due to the attainment status of the area. The facility is located in an area designated as attainment or unclassifiable for PM_{10}, $PM_{2.5}$, CO, NOx, VOC (ozone) and SO_2

and lead. This is an administrative modification to specifically address the PSD requirements for H_2S and SO_2 pursuant to paragraph 15.A.g. of the Sunny Farms Landfill Consent Order.

The proposed installations and modifications by Sunny Farms Landfill in this permitting action are being requested to fulfill the requirements of the Sunny Farms Landfill Consent Order. Table I below identifies the emissions based on the three operating scenarios proposed in this project:

TABLE I

PROJECT EMISSIONS

Operating Scenario	SO_2 lb/hr	Flare SO_2 TPY	Flare H_2S lb/hr	Flare H_2S TPY	Fugitive H_2S lb/hr	Fugitive H_2S TPY
Both Treatment Trains Online & All Treated LFG to Enclosed Flare	35.5	142.7	0.04	0.149	32.6	131.0
Maintenance- 1 Train Offline & Partial LFG to Online Train & Enclosed Flare	20.5	6.9	0.02	0.007	32.6	10.9
Balance of untreated LFG to Open Flare	497.2	167.1	0.79	0.264		
Both Treatment Trains and Enclosed Flare Offline: Untreated LFG to Open Flare	870.2	20.9	1.38	0.033	192.8	4.6
Total		337.5		0.45		146.6

The proposed project triggers PSD review requirements for SO_2 and H_2S.

Best Available Control Technology Review (BACT)

The requirement to conduct a BACT analysis and determination is set forth in section 165(a)(4) of the Clean Air Act (Act), in federal regulations at 40 CFR Part 52.21.(j) and also in OAC rules 3745-31-15(C) and 3745-31-01(S). The BACT requirement is defined as:

> "an emissions limitation (including a visible emissions standard) based on the maximum degree of reduction for each regulated NSR pollutant which would be emitted from any proposed major stationary source or major modification which the director, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such major stationary source or major modification through application of production processes or available methods, systems and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such pollutant. In no event shall application of best available control technology result in emissions of any pollutant that would exceed the emissions allowed by any applicable standard under 40 CFR Parts 60, 61, and 63. If the director determines that technological or economic limitations on the application of measurement methodology to a particular emissions unit would make the imposition of an emissions standard infeasible, a design, equipment, work practice, operational standard, or combination thereof, may be approved by the director instead to satisfy the requirement for the application of best available control technology. Such standard shall, to the degree possible, set forth the emissions reduction achievable by implementation of such design, equipment, work practice or operation and shall provide for compliance by means which achieve equivalent results."

The BACT process was further formalized in a memorandum by USEPA on December 1, 1987 and in the draft New Source Review Workshop Manual (EPA 1990b) issued on March 15, 1990, by introducing a "top-down" concept for BACT analysis. The top-down process requires that all available control technologies be ranked in descending order of control effectiveness. The BACT process first examines the most stringent - or top - alternative. That alternative is established as BACT unless it is demonstrated that technical considerations, or energy, environmental, or economic impacts justify a conclusion that the most stringent technology is not applicable. If the most stringent technology is eliminated, then the next most stringent alternative is considered, and this process is continued until an acceptable BACT is selected.

The objective of the BACT analysis is to conduct pollutant-specific control technology evaluation per USEPA requirements. The BACT evaluation steps consist of:

Step 1: identify all control technologies;

Step 2: eliminate technically infeasible options;

Step 3: rank remaining control technologies by control effectiveness;

Step 4: evaluate most effective controls and document results; and

Step 5: select the most effective control based on energy, environmental and economic impacts (generally the feasible technology that is also considered to be cost effective).

BACT Analysis: Solid Waste/Asbestos Landfill (P902)

This permitting action addresses the SO_2 and H_2S BACT requirements that were agreed to in The BACT Report and Final Air Dispersion Modeling Protocol approved on July 15, 2020. The BACT evaluation for the Solid Waste/Asbestos Landfill (P902) is presented in the table below.

Pollutant	BACT Requirements
SO_2	337.6 tons SO_2 per rolling, 12-month period SO_2 emissions from the enclosed flare shall not exceed the following: i. 35.5 lbs/hr, as a 24-hour daily average, during normal operations; and ii. 0.5 lbs/hr, as a 24-hour daily average when only one of the two H_2S control system trains is operational SO_2 emissions from the open 125-foot flare shall not exceed the following: i. 497.2 lbs/hr, as a 24-hour daily average, during periods of startup, shutdown and maintenance when only one of the two H_2S control system trains is operational; and ii. 870 lbs/hr, has a 24-hour daily average, during periods of startup, shutdown and maintenance of the H_2S control system and enclosed flare

H_2S	146.95 tons H_2S per rolling, 12-month period For the control of fugitive H_2S emissions, an active landfill gas (LFG) collection system shall be operated and maintained in accordance with the developed Landfill Gas Collection and Control System - Maintenance, Monitoring, and Recordkeeping Plan (MMRP) Except during SSM, all collected gases are vented to an H2S control system designed to operate to reduce H_2S concentrations by the following: i. For LFG with a H_2S concentration greater than 10,000 ppmv, achieve a 98% reduction in H_2S concentration (by volume) in the untreated LFG; and ii. For LFG with a H_2S concentration equal to or less than 10,000 ppmv, achieve a maximum outlet H_2S concentration (by volume) no greater than 200 ppmv. The enclosed flare shall achieve the following: i. Achieve a minimum of 98% conversion of all H_2S (contained in the treated LFG) to SO_2 During periods of H_2S control system SSM: i. One removal train shall be operated at all times, unless the enclosed flare is offline ii. If the enclosed flare and H_2S control system are offline, untreated LFG shall be vented to the open flare

Modeling Summary:

Air Dispersion Modeling

Sunny Farms Landfill is located in Fostoria, Ohio (Seneca County). The area is classified as attainment for all criteria pollutants. Air dispersion modeling was submitted for SO_2 and additional analyses to account for the secondary formation of $PM_{2.5}$. A NAAQS and Increment modeling across the full receptor grid was conducted as opposed to only conducting a Significant Impact Analysis for the project. Increment modeling was submitted and reviewed for 3-hour, 24-hour, and annual SO_2. Cumulative modeling demonstrated no exceedance of the 1-hour SO_2 NAAQS.

The results of the increment and NAAQS modeling analyses using the correct averaging periods are shown in the tables below:

Pollutant	Averaging Time	MAX Modeled Concentration (including background) (mg/m3)	NAAQS (mg/m3)
SO_2	1-hour	166.8 (normal operations)	196.2
SO_2	1-hour	167.2 (SSM)	196.2

Pollutant	Averaging Time	MAX Modeled Concentration (mg/m3)	PSD Class II Increment (mg/m3)
SO_2	3-hour	145.7	512
SO_2	24-hour	48.7	91
SO_2	Annual	5.17	20

Qualitative Assessment of the Potential for Secondary $PM_{2.5}$ Formation

In accordance with U.S. EPA draft guidance (March 4, 2013), impacts of SO_2 as precursors to secondary $PM_{2.5}$ formation was performed. A qualitative assessment as conducted in accordance with U.S. EPA's "Draft Guidance for $PM_{2.5}$ Permit Modeling" and precursor emissions of SO_2 are not expected to have a significant impact to ambient air quality nor will they result in a violation of the NAAQS for $PM_{2.5}$.

Secondary Impact Analysis

Sunny Farms Landfill has demonstrated that the predicted pollutant concentrations throughout the study area are below the secondary NAAQS thresholds. The secondary NAAQS are designed to limit the amount of pollutants in the ambient air to levels below those which could have an adverse impact on human welfare, soils and vegetation. The modeling analyses demonstrate that no significant impacts on human welfare, soils or vegetation will occur from the proposed modification. Specific details are presented in the permit application.

Ohio Air Toxics Modeling

Sunny Farms Landfill submitted Ohio Air Toxics modeling for two pollutants, H_2S and hydrogen chloride (HCl). The modeled impacts were compared to the Maximum Achievable Ground Level Concentrations (MAGLC). The MAGLC for H_2S is 33.19 mg/m3 and the MAGLC for HCl is 52.3 mg/m3. The controlling scenario for this modeling assessment was the SSM emission rate of 0.81 lb H_2S/hr, with a resulting maximum 1-hour impact 0.24 mg/m3. The controlling scenario for the HCl assessment was also the SSM emission rate of 1.47 lbs HCl/hr, resulting in a maximum 1-hour impact of 0.893 mg/m3. The air toxics modeling demonstrates that the modeled impacts were well below the pollutant-specific MAGLC values.

Conclusions

Based upon the review of the permit to install application and the supporting documentation provided by the applicant, the Ohio EPA staff has determined the installation/modification of the control equipment will comply with all applicable State and Federal environmental regulations and that the requirements for PSD review are satisfied. Therefore, the Ohio EPA staff recommends that a permit to install be issued to Sunny Farms Landfill for the proposed project.

PSD PTI PUBLIC NOTICE WITH PUBLIC HEARING

Seneca County

PUBLIC NOTICE PUBLIC HEARING
Issuance of Draft Air Pollution PSD Permit
Sunny Farms Landfill

Issue Date: July 27, 2021
Permit Number: P0128797
Permit Type: PSD
Facility ID: 0374010199
Facility Location: 12500 West County Road 18
Fostoria, OH 44830

Permit/Facility Description: Permit-to-install (PTI) for an administrative modification to allow for the installation of a new H2S control system, consisting of a dual train scrubber system, enclosed flare and an open flare to be used during startup shutdown and maintenance. The permit also establishes BACT requirements for H2S and SO2.

The Director of the Ohio Environmental Protection Agency, 50 West Town Street, Columbus Ohio has issued a draft air pollution control Prevention of Significant Deterioration (PSD) installation permit for the listed facility. The draft permit is being issued to solicit comments from any interested party for the director to consider prior to making a final decision.

The proposed allowable emission rates of PSD pollutants from the facility in tons per year are: Sulfur Dioxide (SO2) 337.6; Hydrogen Sulfide (H2S) 146.9.

Air dispersion modeling was performed to show allowed emission levels will not cause or contribute to an exceedance of any National Ambient Air Quality Standard (NAAQS). The maximum air pollutant concentrations and averaging periods that are expected from this facility are the following in micrograms per cubic meter: 167.2 SO2 1-hour. Air dispersion modeling was also performed to evaluate potentially toxic compounds and passed all toxic modeling thresholds. All other pollutants were too small to model.

A public hearing on the draft air permit is scheduled for August 30, 2021 at Tiffin Middle School, 103 Shepherd Drive, Tiffin, OH 44883. An information session will commence at 6:00 pm followed by a public hearing to accept comments on the draft permit. A presiding officer will be present and may limit oral testimony to ensure that all parties are heard.

All interested persons are entitled to attend or be represented and give written or oral comments on the draft permit at the hearing. Written comments on the draft permit must be received by the close of the business day on September 7, 2021. Comments received after this date may not be considered a part of the official record. Written comments may be submitted at the hearing or sent to: Alyse Wineland, Ohio EPA Northwest District Office, 347 North Dunbridge Road, Bowling Green, OH 43402 or Alyse.Wineland@epa.ohio.gov.

The draft permit may be obtained at: http://epa.ohio.gov/dapc/newpermits/issued by clicking on "Electronic Copies of Issued Permits" and entering the permit number P0128797. Physical copies of the permit or copies of supporting records may be inspected and copied at the Ohio EPA Northwest District Office, located at the above address, telephone number 419-352-8461.

DRAFT

Division of Air Pollution Control
Permit-to-Install
for
Sunny Farms Landfill

Facility ID:	0374010199
Permit Number:	P0128797
Permit Type:	Administrative Modification
Issued:	07/27/2021
Effective:	To be entered upon final issuance

Ohio Environmental Protection Agency

Division of Air Pollution Control
Permit-to-Install
for
Sunny Farms Landfill

Table of Contents

Authorization

Facility ID:	0374010199
Facility Description:	Refuse Systems
Permit Number:	P0128797
Permit Description:	Administrative modification to allow for the installation of a new H2S control system, consisting of a dual train scrubber system, enclosed flare and an open flare to be used during startup shutdown and maintenance. The permit also establishes BACT requirements for H2S and SO2.
Permit Type:	Permit-To-Install
Permit Fee:	$1,250.00 *DO NOT send payment at this time, subject to change before final issuance*
Issue Date:	07/27/2021
Effective Date:	To be entered upon final issuance

This document constitutes issuance to:

Sunny Farms Landfill
12500 West County Road 18
Fostoria, OH 44830

of a Permit-to-Install for the emissions unit(s) identified on the following page.

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

Ohio EPA DAPC, Northwest District Office
347 North Dunbridge Rd.
Bowling Green, OH 43402
(419)352-8461

The above named entity is hereby granted a Permit-to-Install for the 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 emissions unit(s) of environmental pollutants 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

Laurie A. Stevenson
Director

Authorization (continued)

Permit Number: P0128797
Permit Description: Administrative modification to allow for the installation of a new H2S control system, consisting of a dual train scrubber system, enclosed flare and an open flare to be used during startup shutdown and maintenance. The permit also establishes BACT requirements for H2S and SO2.

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

Emissions Unit ID:	**P902**
Company Equipment ID:	Solid Waste/Asbestos Landfill
Superseded Permit Number:	P0116255
General Permit Category and Type:	Not Applicable

List of Commonly Used Abbreviations

AP-42 = U.S. EPA's Compilation of Air Pollution Emissions Factors	IBR = Incorporation by Reference	PER = Permit Evaluation Report
ASTM = American Society for Testing and Materials	ID = Identification Number (typically referring to a facility ten-digit ID number)	PM = particulate matter
BACT = Best Available Control Technology	LAER = Lowest Achievable Emission Rate	PM_{10} = particulate matter with an aerodynamic diameter less than or equal to 10 microns
BAT = Best Available Technology	lb(s)/hr = pound(s) per hour	$PM_{2.5}$ = particulate matter with an aerodynamic diameter less than or equal to 2.5 microns
CAA = Clean Air Act (1955, 70, 77, 80)	LDAR = Leak Detection and Repair	ppb = parts per billion
CAAA = Clean Air Act Amendments (1990)	LPG = liquefied petroleum gas/propane	ppm = parts per million
CAM = Compliance Assurance Monitoring	MACT = Maximum Achievable Control Technology	PSD = Prevention of Significant Deterioration
CEM = Continuous Emissions Monitor	MAGLC = Maximum Acceptable Ground Level Concentration	psi = pounds per square inch
CEMS = Continuous Emissions Monitoring System	mg/m3 = milligrams per cubic meter	psia = pounds per square inch absolute
CFC = chlorofluorocarbon	MM = million	PTE = Potential-to-Emit
CFR = Code of Federal Regulations	MMBtu = million British Thermal Units	PTI = Permit-to-Install
CH_4 = methane	MON = Miscellaneous Organic Chemical Manufacturing NESHAP	PTIO = Permit-to-Install and Operate
CI = compression ignition		PTO = Permit-to-Operate
CO = carbon monoxide	MSDS = Material Safety Data Sheet	PWR = process weight rate
CO_2 = carbon dioxide	MSW = Municipal Solid Waste	RACM = Reasonably Available Control Measures
COM = Continuous Opacity Monitor	NAAQS = National Ambient Air Quality Standard	RACT = Reasonably Available Control Technology
DAPC = Division of Air Pollution Control	NESHAP = National Emission Standard for Hazardous Air Pollutants	RATA = Relative Accuracy Test Audit
DO/LAA = District Office/Local Air Agency	NG = natural gas	RTO = regenerative thermal oxidizer
dscf = dry standard cubic foot	ng/m3 = nanograms per cubic meter	SB265 = Senate Bill 265
EAC = Emissions Activity Category	NH_3 = ammonia	scfm = standard cubic feet per minute
eDocs = Electronic Documents Database	NMHC = non-methane hydrocarbons	SI = spark ignition
ERAC = Environmental Review Appeals Commission	NMOC = non-methane organic compound	SIP = State Implementation Plan
ESP = electrostatic precipitator	NNSR = Nonattainment New Source Review	SM = Synthetic Minor
EU = Emissions Unit	NO = nitrogen oxide	SO_2 = sulfur dioxide
FEPTIO = Federally Enforceable Permit-to-Install and Operate	NO_2 = nitrogen dioxide	SOB = Statement of Basis
FER = Fee Emissions Report	NO_x = nitrogen oxides	SSMP = Startup, Shutdown and Malfunction Plan
FR = Federal Register	NSPS = New Source Performance Standard	T & C = Term and Condition
GACT = Generally Achievable Control Technology	NSR = New Source Review	TDS = total dissolved solids
GHG = greenhouse gases	NTV = Non-Title V	TLV = Threshold Limit Value
gr = grains	O&M = Operation and Maintenance	TO = thermal oxidizer
gr/dscf = grains per dry standard cubic foot	O_3 = ozone	TPH = ton(s) per hour
H_2S = hydrogen sulfide	OAC = Ohio Administrative Code	TPY = ton(s) per year
H_2SO_4 = sulfuric acid	OC = organic compound	TSP = total suspended particulates
HAP = hazardous air pollutant	OEPA = Ohio Environmental Protection Agency	VE = visible emissions
HCl = hydrochloride	ORC = Ohio Revised Code	VMT = vehicle miles traveled
HF = hydrogen fluoride	Pb = lead	VOC = volatile organic compound
Hg = mercury	PBR = Permit-By-Rule	WPP = Work Practice Plan
HON = Synthetic Organic Chemical Manufacturing NESHAP	PCB = polychlorinated biphenyl	µg/m3 = micrograms per cubic meter
hp = horsepower	PE = particulate emissions	
HVLP = high volume, low pressure	PEMS = Predictive Emissions Monitoring System	

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.8., Air Pollution Nuisance

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

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

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

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

(9) 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

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

(11) 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 Ohio EPA DAPC, Northwest District Office.

(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 Ohio EPA DAPC, Northwest District Office. 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 Ohio EPA DAPC, Northwest District Office 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 Ohio EPA DAPC, Northwest District Office 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 Ohio EPA DAPC, Northwest District Office 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 Ohio EPA DAPC, Northwest District Office.

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 Ohio EPA DAPC, Northwest District Office. 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 63, Subpart AAAA: P902. The complete MACT requirements, including the MACT 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 62, Subparts A and OOO: P902. 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.

C. Emissions Unit Terms and Conditions

1. P902, Solid Waste/Asbestos Landfill

Operations, Property and/or Equipment Description:

Asbestos, municipal solid waste (MSW) and construction and demolition debris (C and DD) landfill operations

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) b)(1)h., b)(1)i., b)(1)j., b)(1)m., b)(2)n., b)(2)m., n)(2)o., b)(2)p., b)(2)q., d)(19), d)(20), d)(21), d)(23), d)(24), d)(25), d)(26), e)(5), e)(6), e)(7), e)(8), e)(13), e)(14), g)(1) and g)(3).

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 3745-31-10 through 20	<u>Sulfur Dioxide (SO_2) Emissions</u>: 337.6 tons per rolling 12-month period [See b)(2)a.] <u>Hydrogen Sulfide (H_2S) emissions</u>: 146.95 tons per rolling 12-month period [See b)(2)a.] See b)(2)b.
b.	ORC 3704.03(T) and OAC rule 3745-31-05(A)(3)	Best Available Technology (BAT) for: <u>Flare emissions</u>: See b)(2)c. for carbon monoxide (CO), nitrogen dioxide (NO_x), particulate matter 10 microns or less is size (PM_{10}), and volatile organic compounds (VOC) See b)(2)e. for SO_2 <u>Fugitive Landfill Gas Emissions:</u> 4.60 tons fugitive volatile organic compounds (VOC) per rolling 12-month period [See b)(2)d.] <u>Fugitive Particulate Emissions:</u> Visible fugitive particulate emissions (PE) from the landfill and construction

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		operations shall not exceed 20% opacity, as a three-minute average. [See b)(2)g. through b)(2)i.] There shall be no visible emissions to the outside air from asbestos-containing waste materials during the on-site transportation, transfer, deposition, or compacting operations. [See b)(2)p.]
c.	40 CFR Part 62, Subpart OOO (40 CFR 62.16710 – 16730) (In accordance with 40 CFR 62.16711, this facility is a municipal solid waste landfill that has accepted waste since November 8, 1987 and is an area source landfill that has a design capacity equal to or greater than 2.5 million megagrams (Mg) and 2.5 million cubic meters (m^3) and has estimated uncontrolled emissions equal to or greater than 34 Mg/yr NMOC)	See b)(2)t., c)(4), d)(27) and e)(15)
d.	40 CFR Part 62, Subpart A (40 CFR 62.01 – 13)	General Provisions [See b)(2)u.]
e.	40 CFR Part 63, Subpart AAAA (40 CFR 63.1930 – 1990) (In accordance with 40 CFR 63.1930 this facility is a municipal solid waste landfill that has accepted waste since November 8, 1987 and is an area source landfill that has a design capacity equal to or greater than 2.5 Mg and 2.5 million m^3 and has estimated uncontrolled emissions equal to or greater than 50 Mg/yr NMOC)	See b)(2)v., c)(5), d)(28) and e)(16)
f.	40 CFR Part 63, Subpart A (40 CFR 63.1 – 16)	Table 1 to Subpart AAAA of 40 CFR Part 63 – Applicability of NESHAP General Provisions to Subpart AAAA show which parts of the General Provisions in 40 CFR 63.1 – 16 apply.
g.	40 CFR 61.140 et seq. [NESHAP Subpart M]	See b)(2)j. through b)(2)l.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
h.	OAC rules 3745-20-05, 20-06, and 20-07	See b)(2)n. through b)(2)p.; d)(19) through d)(21); and e)(5) through e)(8), and e)(13).
i.	OAC rule 3745-31-05(E)	See b)(2)q.
j.	ORC 3704.03(F) and OAC rule 3745-114-01	See d)(23) through d)(26) and e)(14).
k.	OAC rule 3745-17-07(B)(1)	See b)(2)r.
l.	OAC rule 3745-17-08(B)	See b)(2)s.
m.	OAC Chapter 3745-19	See g)(3)

(2) Additional Terms and Conditions

a. The permittee shall employ Best Available Control Technology (BACT) for the control of H_2S and SO_2 emissions from this emissions unit. BACT has been determined to be the use of a landfill gas collection and control system (GCCS) that meets the following design and operational standards:

i. In order to control the fugitive H_2S emissions, an active landfill gas (LFG) collection system shall be operated and maintained in accordance with the facility's current approved (revised 06/15/2021*) Landfill Gas Collection and Control System - Maintenance, Monitoring, and Recordkeeping Plan (MMRP).

*Note: The portions of the MMRP that address the maintenance, monitoring and recordkeeping of the H_2S treatment system and enclosed flare are effective upon startup of the H_2S treatment system.

ii. All collected gases are vented to an H_2S control system designed and operated to reduce H_2S concentrations to the following, except during periods of startup, shutdown, and maintenance:

(a) For collected LFG with an H_2S concentration greater than 10,000 ppmv, the control system shall achieve a minimum of 98% reduction in H_2S concentration (by volume) in the untreated LFG;

AND

(b) For collected LFG with an H_2S concentration equal to, or less than 10,000 ppmv, the control system shall achieve a maximum outlet concentration of H_2S (by volume) no greater than 200 ppmv.

iii. All LFG treated in accordance with the control requirements in b)(2)a.ii. above shall be vented to an enclosed flare designed and operated to meet the following requirements:

(a) Achieve a minimum of 98% conversion of all H_2S (contained in the treated LFG) to SO_2.

(b) Designed and operated with no visible emissions except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

(c) During H_2S control system maintenance periods when one H2S removal train is offline for maintenance, LFG shall be vented to the remaining operational H_2S removal train to the maximum extent practical and the treated LFG vented to the enclosed flare. The remaining untreated LFG shall be vented to the 125-foot open flare.

(d) Maintenance downtime for each H_2S removal train shall not exceed 14 days per calendar year. At least one H_2S removal train shall be in operation at all times, except when the enclosed flare is down for maintenance.

(e) If the enclosed flare must be brought down for maintenance, then all collected LFG shall be vented to the 125-foot open flare. Enclosed flare maintenance down time shall not exceed 2 days per calendar year.

iv. The 125-foot open flare shall be designed and operated in accordance with the provisions of 40 CFR 60.756 (c) of NSPS Subpart WWW and 60.18 the NSPS general provisions for control devices.

v. SO_2 emissions from the enclosed flare shall not exceed the following:

(a) 35.5 lbs/hr, as a 24-hour daily average, during normal operations (when both H_2S control system trains are operational); and

(b) 20.5 lbs/hr, as a 24-hour daily average when only one of the two H_2S control system trains is operational.

vi. SO_2 emissions from the open 125-foot flare shall not exceed the following:

(a) 497.2 lbs/hr, as a 24-hour daily average, during periods of startup, shutdown and maintenance when only one of the two H_2S control system trains is operational; and

(b) 870 lbs/hr, as a 24-hour daily average, during periods of startup, shutdown and maintenance of the H_2S control system and enclosed flare.

vii. The combined H_2S emissions from the enclosed flare (stack), the 125-foot open flare (stack) and from the landfill surface (fugitive) shall not exceed 146.95 tons per rolling 12-month period.

b. The following is for informational purposes only: This permitting action (PTI P0128797) is establishing BACT emissions limitations and associated terms and conditions, as requested by the permittee, in order to fulfill requirements listed in the state Consent Decree, case number, 19cv0224.

c. In addition to the BACT requirements specified above, the enclosed flare shall be designed and operated to meet the following BAT requirements pursuant to ORC 3704.03(T) and OAC rule 3745-31-05(A)(3):

i. 0.20 pound of CO per mmBtu of methane gas combusted;

ii. 0.06 pound of NO_x per mmBtu of methane gas combusted;

iii. 17 pounds PM_{10} per mmdscf of methane gas combusted; and

iv. Achieve a minimum destruction efficiency of 98% for VOC.

The 125-foot open flare shall be designed and operated to meet the following requirements:

v. 0.37 pound of CO per mmBtu of methane gas combusted;

vi. 0.068 pound of NO_x per mmBtu of methane gas combusted;

vii. 17 pounds PM_{10} per mmdscf of methane gas combusted; and

viii. Achieve a minimum destruction efficiency of 98% for VOC.

d. The VOC emission limitation represents the VOC portion of the nonmethane organic compound (NMOC) emission which are not collected by the GCCS and thus are considered fugitive. For the purpose of this permit and federal enforceability, VOC emissions have been determined by applying the AP-42 Chapter 2.4 (11/98) conversion rate of 39% to the predicted NMOC emission rate from the Landfill Gas Emission Model (LandGEM), plus a 15% safety factor. An NMOC emission limit was not established by this rule because there is not an established national ambient air quality standard (NAAQS) associated with NMOC.

e. BAT requirements include compliance with the SO_2 BACT requirements established in accordance with OAC rules 3745-31-10 through 3745-31-20.

f. The following landfill fugitive dust operations/sources are covered by this permit and subject to the above requirements:

i. daily cover handling and placement;
ii. waste handling/dumping at the working face;
iii. spreading, grading and compaction;
iv. soil transport/construction (dirt) roadways; and
v. storage pile activities.

g. The permittee shall employ best available control measures for the above-identified landfill fugitive dust operations/sources for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat with water and/or any other suitable dust suppression chemicals at sufficient treatment frequencies to ensure compliance.

h. The above-mentioned control measures shall be employed if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measures are necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measures shall continue during any such operation until further observation confirms that use of the measures is unnecessary.

Implementation of the control measures shall not be necessary for fugitive dust sources which are covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements.

i. The facility can accept for disposal any regulated asbestos-containing material (ACM) as defined in the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Asbestos, 40 CFR Part 61, Subpart M, Section 141; and/or in Chapter 20 of the Ohio Administrative Code for Asbestos Emission Control, OAC rule 3745-20-01(B); or in any subsequent revisions to either rule. Regulated asbestos-containing material is defined to include:

i. Friable asbestos material;

ii. Category I nonfriable asbestos-containing material that will be or has been subjected to sanding, grinding, cutting, or abrading; or

iii. Category II nonfriable asbestos-containing material that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

j. The permittee is subject to the requirements established in 40 CFR 61.140 et seq. (NESHAP, Subpart M – National Emission Standard for Asbestos). The requirements of this rule are less stringent or equivalent to the requirements established in accordance with OAC rules 3745-20-05 through 3745-20-07, with the exception of the reporting requirement specified in e)(9).

k. The permittee shall comply with the applicable visible emissions limitation and additional restrictions required under 40 CFR Part 61, Subpart M, including the following sections:

61.154(a); or	Visible emission restriction.
61.154(c); or	Daily cover or dust suppressant requirements.
61.154(d); and	Alternative emission control method.
61.154(b)	Natural barrier, sign, and/or fencing requirements.

l. Each owner or operator of an active asbestos waste disposal site that receives waste that contains asbestos-containing material shall comply with the following:

i. There shall be no visible emissions to the outside air from asbestos-containing waste materials during the on-site transportation, transfer, deposition, or compacting operations.

ii. Deposition and burial operations shall be conducted in a manner which prevents handling by equipment or persons that causes asbestos-containing waste materials to be broken-up or dispersed before the materials are buried.

iii. As soon as practicable after deposition of the asbestos-containing waste materials, but no later than at the end of each operating day, the asbestos-containing waste material deposited at the site during the operating day shall be covered with at least twelve (12) inches of compacted nonasbestos-containing material. Alternatively, an owner or operator of an active waste disposal site may apply for approval of the director to utilize alternative control methods to bind dust, control wind erosion, or convert asbestos to nonfriable forms.

iv. During the unloading, deposition, burial, and initial compaction of asbestos-containing waste materials, the owner or operator of the active waste disposal site shall establish a restricted area adequate to deter the unauthorized entry of the general public and any unauthorized personnel from any location with one hundred feet of the operations; and

v. Shall display the following information on a sign not less than twenty by fourteen (20 x 14) inches, so that it is visible at all entrances and at intervals of three hundred (300) feet or less along the property line or fencing immediately surrounding the restricted area using letter sizes and styles of a visibility at least equal to the following specifications:

(a) One (1) inch sans serif, gothic, or block in the first and second lines; and

(b) At least three-fourths (3/4) inch sans serif, gothic, or block in the third line; and

(c) Fourteen (14) point gothic in the fourth line; and

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

"ASBESTOS WASTE DISPOSAL SITE

DO NOT CREATE DUST

BREATHING ASBESTOS IS

HAZARDOUS TO YOUR HEALTH"

m. Upon closure of the facility, the owner or operator of the active waste disposal site shall comply with all the provisions of OAC rule 3745-20-07 [See g)(1)].

n. Pursuant to OAC rule 3745-21-01, an inactive waste disposal site is defined as "any disposal site or portion thereof, which contains asbestos-containing waste materials, but where such material has not been deposited within the past year". The permittee shall comply with the provisions of OAC rule 3745-20-07 for inactive waste disposal sites [See g)(1)].

o. The permittee shall develop, implement, and maintain an "Asbestos Disposal Operating Procedures and Spill Contingency Plan" (Asbestos Plan) consisting of:

i. Authorized personnel training;

ii. Inspection and disposal operating procedures;

iii. Non-conforming load response procedures;

iv. Accidental disturbance and/or re-excavation of disposed asbestos;

v. Inventory and maintenance procedures for safety and emissions control equipment;

vi. Recordkeeping procedures; and

vii. Emergency notification procedures.

Authorized personnel shall be knowledgeable in the procedures of the Asbestos Plan. Emissions control equipment shall be available for wetting and containing asbestos in the event of a release or non-conforming load disposal. All equipment required to implement the plan shall be maintained in accordance with good engineering practices to ensure that the equipment is in a ready-to-use condition and in an appropriate location for use. The Asbestos Plan shall be available for inspection at this facility at all times.

p. The permittee shall develop, implement, and maintain a "Non-Regulated Asbestos Disposal Operating Procedures and Spill Contingency Plan" (Non-Regulated Asbestos Plan) which contains the following, at a minimum:

i. Facility policy regarding the acceptance of known or suspected non-regulated ACM;

ii. Procedures for handling known or suspected non-regulated ACM in order to prevent the asbestos from becoming friable;

iii. Procedures for handling any known or suspected non-regulated ACM that becomes friable due to landfilling activities;

iv. Procedures for handling any accidental disturbance and/or re-excavation of known or suspected disposed ACM;

v. Recordkeeping procedures regarding the disposal and location of known or suspected non-regulated ACM; and

vi. Emergency notification procedures.

Authorized personnel shall be knowledgeable in the procedures of the Non-Regulated Asbestos Plan. Emissions control equipment shall be available for wetting and containing asbestos in the event of a release. All equipment required to implement the plan shall be maintained in accordance with good engineering practices to ensure that the equipment is in a ready-to-use condition and in an appropriate location for use. The Non-Regulated Asbestos Plan shall be available for inspection at this facility at all times.

q. The BAT requirements for the fugitive PE from the on-site transportation, transfer, deposition, or compacting operations of asbestos-containing waste materials has been determined to be compliance with the requirements of OAC rules 3745-20-06 and 3745-20-07.

r. This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B)(11)(e).

s. The facility is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B)(1).

t. The permittee shall comply with the applicable requirements under 40 CFR Part 62, Subpart OOO (40 CFR 62.16710 – 16730). At the time of issuance of this permit, an annual emission report as required by §62.16712(b) was submitted to Ohio EPA on 01/07/2021 with a calculated NMOC emission rate greater than 34 Mg per year resulting in emissions unit P902 being subject to the collection and control system requirements outlined in §62.16714(b)(2).

u. 40 CFR Part 62, Subpart A provides applicability provisions, definitions, and other general provisions that are applicable to emissions units affected by 40 CFR Part 62.

v. The permittee shall comply with the applicable requirements under 40 CFR Part 63, Subpart AAAA (40 CFR 63.1930 – 1990).

w. The H_2S control system involves collected LFG being distributed by use of a piping manifold system to two separate H_2S treatment units operated in a parallel configuration. The treated LFG from each H_2S treatment unit is combined in common piping system prior to the inlet of the enclosed flare. The H_2S concentration from the H_2S control system shall be measured in the manifold piping system in the common piping manifold system after the H_2S control system and prior to the enclosed flare.

The piping manifold system prior to the two H_2S treatment units is also the inlet to the open flare. During periods of startup, shutdown and maintenance of the H_2S control system and/or enclosed flare, the H_2S concentration of the LFG vent to the open flare shall be measured in the common piping manifold system.

c) Operational Restrictions

(1) The maximum daily waste receipt rate for this emissions unit shall not exceed 7,500 tons of total waste, including MSW and C&DD material.

(2) The open and enclosed flares shall be operated with a flame present at all times when gases are vented to it.

(3) The presence of a pilot flame shall be monitored using a thermocouple or other equivalent device to detect the presence of a flame. A pilot flame shall be maintained in each flare's pilot light burner. If the pilot flame goes out and does not relight, then an alarm shall sound.

(4) See 40 CFR Part 62, Subpart OOO (CFR 62.16710 – 16730).

(5) See 40 CFR Part 63, Subpart AAAA (40 CFR 63.1930 – 1990).

d) Monitoring and/or Recordkeeping Requirements

(1) Each continuous H_2S monitoring system shall be certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 7. At least 45 days before commencing certification testing of the continuous H_2S monitoring system(s), the permittee shall develop and maintain a written quality assurance/quality control plan designed to ensure continuous valid and representative readings of H_2S emissions from the CEMS, in units of the applicable standard(s).

For the CEMS located prior to the inlet of the enclosed flare, the plan shall follow the requirements of 40 CFR, Part 60, Appendix F and shall include the requirements to conduct daily calibrations checks, and quarterly cylinder gas audits or relative accuracy audits and to conduct an annual relative accuracy test in units of the standard(s) in accordance with 40 CFR, Part 60, Appendix F.

For the CEMS located at the common piping manifold, the plan shall follow the requirements of 40 CFR, Part 60, Appendix F and shall include the requirement to conduct quarterly cylinder gas audits or relative accuracy audits as required in 40 CFR, Part 60; and to conduct relative accuracy test audits in units of the standard(s), in accordance with and at the frequencies required per 40 CFR, Part 60, except as noted below.

a. Conduct a relative accuracy test audit of the H_2S CEM at a minimum frequency of once every three years; and

b. Conduct cylinder gas audits on the H_2S CEM during each quarter when a relative accuracy test audit is not conducted.

(2) The quality assurance/quality control plan and a logbook dedicated to the continuous H_2S CEMS must be kept on site and available for inspection during regular office hours.

H_2S and continuous emission monitoring system(s) consists of all the equipment used to acquire data to provide a record of emissions and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

(3) The permittee shall install, operate, and maintain equipment to continuously monitor and record H_2S emissions from this emissions unit (at the inlet to the open flare and at the inlet of the enclosed flare) in units of the applicable standard(s). The H_2S CEMS shall be certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 7.

The permittee shall maintain records of all data obtained by each continuous H_2S monitoring system including, but not limited to:

a. Emissions of H_2S in parts per million for each cycle time of the analyzer, with no resolution less than one data point per minute required, data may be averaged in 15-minute periods if storage is an issue;

b. Emissions of H_2S in pounds per hour and tons per rolling 12-month period, in units of the applicable standard(s) in the appropriate averaging period;

c. Results of quarterly cylinder gas audits;

d. Results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;

e. Results of required relative accuracy test audit(s), including results in units of the applicable standard(s);

f. Hours of LFG collection system operation, continuous H_2S monitoring system, and control equipment (open and/or H_2S control system and enclosed flare);

g. The date, time, and hours of operation of the LFG collection system without the control equipment (open and/or H_2S control system and enclosed flare) and/or the continuous H_2S monitoring system;

h. The date, time, and hours of operation of the LFG collection system during any malfunction of the control equipment (open and/or H_2S control system and enclosed flare) and/or the H_2S CEMS; as well as,

i. The reason (if known) and the corrective actions taken (if any) for each such event in d)(3)g. and d)(3)h.

All valid data points generated and recorded by the CEMS and data acquisition and handling system shall be used in the calculation of the pollutant concentration and/or emission rate over the appropriate averaging period.

Prior to the installation of the continuous H_2S monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 7. The Ohio EPA, Central Office shall approve the proposed sampling site and certify that the continuous H_2S monitoring system meets the requirements of Performance Specification 7. Once received, the letter(s)/document(s) of certification shall be maintained on-site and shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

(4) At least 30 days prior to the startup of the H_2S control system, the permittee shall submit to the Ohio EPA Northwest District Office a revised Landfill Gas Collection System – MMRP. Additional revisions to the plan shall be submitted to the Ohio EPA Northwest District Office. The plan and all subsequent revisions will require written approval from the Ohio EPA prior to implementation.

(5) The revised Landfill Gas Collection System – MMRP shall specify all additional manufacturer specified monitoring parameters (e.x., venturi absorber pressure drop and absorbent solution flow rate) that ensure the proper operation and maintenance of the H_2S treatment system.

(6) The permittee shall collect and analyze the regenerated absorbent solution at least once per day of operation for each individual H_2S treatment unit. Each sample of a regenerated absorbent solution shall be analyzed for pH and oxidation-reduction potential (ORP). The permittee shall maintain records of the results of the analyses for pH and ORP.

(7) The permittee shall properly install, operate, and maintain equipment to continuously monitor and record the flow rate (standard cubic feet per minute) for the LFG collection system in the common header pipe supplying LFG to H_2S removal system, LFG flow to each treatment system train and in common header pipe supplying LFG to the enclosed flare from the two H_2S treatment systems. Flow monitor readings shall be reduced to hourly averages. The flow monitors shall be installed and operated in accordance with the provision of 40 CFR 60, Appendix B, Performance Specification 6. The permittee shall maintain records of all recorded hourly flow rate averages.

(8) In order to maintain compliance with the applicable emission limitation(s) associated with the enclosed flare contained in this permit, the acceptable operating temperature within the enclosed flare, excluding periods of startup and shutdown (with the except for periods of maintenance when a backup flare is in use), shall not be less than the lowest temperature measured (in degrees Fahrenheit) during the most recent compliant stack test based on a 3-hour average. Until compliance testing has been conducted, the enclosed flare shall be operated and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manual.

(9) The permittee shall properly install, operate, and maintain continuous temperature monitors and recorder(s) that measure and record(s) the operating temperature within the enclosed flare, (except for periods of startup, shutdown and maintenance when a backup flare is in use). The permittee shall record the operating temperature on continuous basis and reduce to hourly averages and 3-hour block average. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee. The acceptable temperature setting shall be based upon the manufacturer's specifications until such time as any required performance testing is conducted and the appropriate temperature range is established to demonstrate compliance. These records shall be maintained at the facility for a period of no less than 5 years.

(10) Whenever the 3-hour average operating temperature within the enclosed flare deviates by more 5% below the minimum operating temperature from the limit during the performance

tests, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. The date and time the deviation began;

b. The magnitude of the deviation at that time;

c. The date the investigation was conducted;

d. The name(s) of the personnel who conducted the investigation; and

e. The findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range/limit specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

f. A description of the corrective action;

g. The date corrective action was completed;

h. The date and time the deviation ended;

i. The total period of time (in minutes) during which there was a deviation;

j. The temperature readings immediately after the corrective action was implemented; and

k. The name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The minimum temperature limit is effective unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted minimum temperature limit based upon information obtained during future performance tests that demonstrate compliance with the allowable emission rate(s) for the controlled pollutant(s). In addition, approved revisions to the temperature limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into the facility's Title V permit by means of a minor permit modification.

(11) The permittee shall maintain records of the following for the LFG collection and control system:

a. All times during which the LFG collection system was not operational;

b. All times during when only a single H_2S treatment unit was in operation and identification of H_2S treatment unit that was not operational;

c. All times during which both H_2S treatment units were not operational; and

d. All times during which the enclosed flare was not operational.

The records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred. These records shall be maintained at the facility for a period of no less than 5 years.

(12) SO_2 emissions lbs/hr from the open flare and enclosed flare shall be determined using the H_2S CEMS and flow rate monitors. The. hourly SO_2 emission rate shall be calculated using the average hourly flow rate (scf) and hourly H_2S averages (ppmv) in accordance with the following equation:

SO_2 lb/hr = (LFG flow rate, in scfm) x S (ppmv) x (1.685×10^{-7}) x (60 mins/hr) x 0.997

Where

LFG: Collected Landfill Gas Flow Rate

S: Sulfur concentration of H_2S

1.685×10^{-7}: Conversion ppmv to lbs/scf (molecular weight of sulfur/(universal gas constant x temperature) (64.006/(0.7302 x 520))

0.997: 99.7% conversion rate of sulfur compounds to SO_2

Except for H_2S, the concentrations provided below are default concentrations from AP-42 Chapter 2.4 (11/98). Should revised concentration data become available the most current concentrations shall be used.

- Carbon disulfide: 1.16 ppmv;
- Carbonyl sulfide: 0.49 ppmv;
- Dimethyl sulfide: 7.80 ppmv;
- Ethyl mercaptan: 2.27 ppmv;
- Hydrogen sulfide: as measured by H_2S CEMS
- Methyl mercaptan: 2.48 ppmv.

(13) The permittee shall record all periods of time during which a pilot flame not present or the flare was inoperable.

(14) The permittee shall maintain monthly records of the following information for this emissions unit:

a. The calculated emissions of VOC* from fugitive landfill gas emissions, in tons; and

b. The rolling, 12-month emissions of VOC* from fugitive landfill gas emissions, in tons.

*Emissions of VOC shall be determined in accordance with the emissions calculations approach presented to the Ohio EPA, submitted by the permittee on June 1, 2021, as supplemental information to Permit Application No. M0006635.

(15) The permittee shall maintain the following waste acceptance records:

a. For each calendar day, the permittee shall record:

i. The type and quantity of waste accepted by the landfill [i.e.: MSW, sludge, exempt, C&DD, asbestos, other], in tons per day; and

ii. The total daily waste accepted by the landfill [sum of d)(15)a.i.], in tons per day.

b. For each calendar month, the permittee shall record:

i. The total amount of organic waste received, in tons per month; and

ii. The total year-to-date amount of organic waste received [sum of d)(15)b.], in tons per year.

(16) Except as otherwise provided in this section, the permittee shall perform inspections of the landfill fugitive dust operations/sources in accordance with the following frequencies:

Landfill Fugitive Dust Operation/Source	Minimum Inspection Frequency
daily cover handling and placement	once during each day of operation
waste handling/dumping	once during each day of operation
spreading, grading and compaction	once during each day of operation
soil transport/construction (dirt) roadways	once during each day of operation
storage pile activities	once during each day of operation

(17) The purpose of the inspections is to determine the need for implementing the above-mentioned control measures for fugitive particulate emissions. The inspections shall be performed during representative, normal operating conditions. No inspection shall be necessary for a landfill fugitive dust operation/source that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Any required inspection that is not performed due to any of the above identified event(s) shall be performed as soon as such event(s) has (have) ended, except if the next inspection is within one week.

(18) The permittee shall maintain records of the following information:

a. The date and reason any required inspection was not performed;

b. The date of each inspection where it was determined by the permittee that it was necessary to implement the control measure(s);

c. The dates the control measure(s) was (were) implemented; and

d. On a calendar quarter basis, the total number of days the control measure(s) was (were) implemented.

The information in d)(18)d. shall be kept separately for each landfill fugitive dust operation/source listed above, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

(19) During the handling of asbestos-containing waste materials, the permittee shall check for any visible emissions from the asbestos-containing waste materials during on-site transportation, transfer, unloading, deposition, and compacting of the waste. The presence or absence of any visible emissions from the asbestos-containing waste materials shall be noted in an operations log.

If visible emissions are observed, the permittee shall immediately follow the procedures of the "Asbestos Disposal Operating Procedures and Spill Contingency Plan" and also note the following in the operations log:

a. The total duration of any visible emission incident; and

b. Any corrective actions taken to eliminate the visible emissions.

(20) The owner or operator of a waste disposal site shall maintain waste shipment records for all asbestos-containing waste material received. The waste shipment record shall be legible, complete, signed, and dated by the waste generator and waste disposal site operator as follows:

a. The waste shipment record shall include the following information:

i. The name of the work site or facility where the asbestos-containing waste was generated, the mailing address, and telephone number of the facility owner;

ii. The name, mailing address, and telephone number of the owner or operator (waste generator) responsible for handling, packing, marking, and labeling the asbestos-containing waste material;

iii. The name, mailing address, telephone number, and site location of the active waste disposal site designated by the generator to receive the asbestos-containing waste material for disposal;

iv. The name and address of the local, state, or U.S. EPA regional agency responsible for administering the asbestos NESHAP program;

v. A description of the asbestos-containing waste materials included in the waste shipment;

vi. The number and type of containers included in the waste shipment;

vii. The approximate volume of asbestos-containing waste material included in the waste shipment, in cubic yards;

viii. Special handling instructions or additional information relative to the waste shipment the waste generator may specify;

ix. A certification that the contents of this consignment are fully and accurately described by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and governmental regulations;

x. The name, address, and telephone number of the transporter;

xi. A signature by the transporter to acknowledge receipt of the asbestos-containing waste shipment described by the waste generator in sections d)(20)a.i through d)(20)a.ix. above;

xii. A discrepancy indication space to be completed by the owner or operator of the waste disposal site if any improperly contained asbestos waste is observed or if there is any discrepancy in the quantity of asbestos shipped and the quantity of asbestos waste received at the asbestos waste disposal site; and

xiii. A signature by the waste disposal site owner or operator to acknowledge receipt of the asbestos-containing waste shipment described by the waste generator in sections d)(20)a.i. through d)(20)a.ix., except as noted in the discrepancy indication space.

b. Upon receiving the waste shipment, the waste disposal site owner or operator shall:

i. Sign and date the waste shipment record making note of any improperly contained asbestos-containing waste material or any discrepancy in the quantity or waste received on the discrepancy indication space and provide a copy of the waste shipment record to the transporter for his receipt and records.

ii. As soon as possible and no longer than thirty days after receipt of the waste, send the original completed copy of the signed waste shipment record to the waste generator and retain the remaining copy for the waste site disposal record.

iii. Upon discovering a discrepancy between the quantity of waste designated on the waste shipment records and the quantity actually received, the permittee shall attempt to reconcile the discrepancy with the waste generator. If the discrepancy is not resolved within fifteen (15) days after receiving the waste, the permittee shall immediately report the discrepancy in writing to the local, state, or U.S. EPA regional office responsible for administering the asbestos NESHAP program for the disposal site. The permittee shall describe the discrepancy and attempts to reconcile it and submit a copy of the waste shipment records along with the report to Ohio EPA.

If, on the basis of the inspection, the waste material is found to be improperly received, the load shall be disposed of in accordance with the procedures in the "Asbestos Disposal Operating Procedures and Spill Contingency Plan", and the discrepancy shall be noted on the waste shipment record.

If possible, non-conforming loads of suspect friable material shall be detained, or the location of disposal protected from damage, until the appropriate Ohio EPA District Office or local air agency is informed and proved the opportunity to inspect.

(21) For all asbestos-containing waste material received, the owner or operator of the active waste disposal site shall maintain until closure, records of the location, depth, area, and quantity, in cubic yards of asbestos-containing waste material, within the disposal site on a map or a diagram of the disposal area.

(22) The permittee shall comply with the applicable monitoring and recordkeeping requirements under 40 CFR Part 61, Subpart M, including the following sections:

61.154(e)(1); 61.154(e)(2); and 61.154(e)(3)	Requirements for waste shipment records.
61.154(e)(4) and 61.154(i)	Record retention and inspection requirements.
61.154(f)	Asbestos placement records.
61.154(g)	Closure requirements.

(23) The permit-to-install application for this emissions unit was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this emissions unit for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

a. The exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit, (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):

i. Threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or

ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold

Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.

b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).

c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit, i.e., "X" hours per day and "Y" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

TLV/10 x 8/X x 5/Y = 4 TLV/XY = MAGLC

d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminant(s):

Toxic Contaminant: hydrogen sulfide
TLV (mg/m^3): 1.39 (From ACGIH's "2021 TLVs and BEIs" Book)
Maximum Hourly Emission Rate (lb/hr): 0.81* (combined limit from open and enclosed flare stacks)
Predicted 1-Hour Maximum Ground Level Concentration ($\mu g/m^3$): 0.24
MAGLC ($\mu g/m^3$): 33.19

Toxic Contaminant: hydrogen chloride
TLV (mg/m^3): 2.20 (From ACGIH's "2021 TLVs and BEIs" Book)
Maximum Hourly Emission Rate (lb/hr): 0.59* (from open and enclosed flare stacks, combined)
Predicted 1-Hour Maximum Ground Level Concentration ($\mu g/m^3$): 1.504 (combined limit from open and enclosed flare stacks)
MAGLC ($\mu g/m^3$): 52.38

*The maximum hourly emission rate is based on the worst-case scenario of the predicted 1-Hour Maximum Ground Level Concentration from normal operations and maintenance activities, combined.

The permittee has demonstrated that emissions of hydrogen sulfide and hydrogen chloride, from emissions unit(s) P902, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

(24) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground level concentration, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:

a. Changes in the composition of the materials used or the use of new materials, that could result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;

b. Changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and

c. Physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final permit-to-install prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

(25) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):

a. A description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);

b. The Maximum Acceptable Ground Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);

c. A copy of the computer model run(s), that established the predicted 1-hour maximum ground level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and

d. The documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

(26) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground level

concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

(27) See 40 CFR Part 62, Subpart OOO (CFR 62.16710 – 16730).

(28) See 40 CFR Part 63, Subpart AAAA (40 CFR 63.1930 – 1990).

e) Reporting Requirements

(1) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its SO_2 CEMS:

a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR Parts 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency, documenting all instances of SO_2 emissions in excess of any applicable limit specified in this permit. The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s).

b. These quarterly reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall include the following:

i. The facility name and address;

ii. The manufacturer and model number of the continuous H_2S and LFG flow monitors;

iii. A description of any change in the equipment that comprises the CEMS, including any change to the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;

iv. The excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;

v. The total SO_2 emissions for the calendar quarter (tons);

vi. The total operating time (hours) of the LFG collection system;

vii. The total operating time (hours) of the H_2S CEMS while the LFG collection system was in operation;

viii. Results and date of quarterly cylinder gas audits;

ix. Unless previously submitted, results and date of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));

x. Unless previously submitted, the results of any relative accuracy test audit showing the H_2S CEMS out-of-control and the compliant results following any corrective actions;

xi. The date, time, and duration of any/each malfunction** of the H_2S CEMS, LFG collection system, and/or control equipment (enclosed flare);

xii. The date, time, and duration of any downtime** of the continuous H_2S monitoring system and/or control equipment (enclosed flare) while the LFG collection system was in operation; and

xiii. The reason (if known) and the corrective actions taken (if any) for each event in e)(1)b.xi and e)(1)b.xii.

xiv. Each report shall address the operations conducted and data obtained during the previous calendar quarter.

* where no excess emissions have occurred or the continuous monitoring system(s) has/have not been inoperative, repaired, or adjusted during the calendar quarter, such information shall be documented in the EER quarterly report

** each downtime and malfunction event shall be reported regardless of whether there is an exceedance of any applicable limit

(2) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and each H_2S CEMS:

a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency.

b. These quarterly reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall include the following:

i. The facility name and address;

ii. The manufacturer and model number of the continuous H_2S and other associated monitors;

iii. A description of any change in the equipment that comprises the H_2S CEMS, including any change to the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;

iv. The total operating time (hours) of the emissions unit (LFG collection system);

v. The total operating time (hours) of the H_2S CEMS while this emissions unit (LFG collection system) was in operation;

vi. Unless previously submitted, results and dates of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));

vii. Unless previously submitted, the results of any relative accuracy test audit showing the continuous total reduced sulfur monitor out-of-control and the compliant results following any corrective actions;

viii. The date, time, and duration of any/each malfunction** of the H_2S CEMS, emissions unit, and/or control equipment;

ix. The date, time, and duration of any downtime** of the H_2S CEMS and/or control equipment while the emissions unit was in operation; and

x. The reason (if known) and the corrective actions taken (if any) for each event in e)(2)b.xi. and e)(2)b.xi.

Each report shall address the operations conducted and data obtained during the previous calendar quarter.

* where the H_2S CEMS has/have not been inoperative, repaired, or adjusted during the calendar quarter, such information shall be documented in the EER quarterly report

** each downtime and malfunction event shall be reported regardless of whether there is an exceedance of any applicable limit

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

a. In accordance with the Monitoring and Recordkeeping Requirements established in d)(4) the permittee shall submit quarterly deviation (excursion) reports that identify any of the following:

i. Each instance when the approved Landfill Gas Collection System – MMRP was not followed; and

ii. Describe any corrective actions taken upon discovering the approved MMRP was not followed.

(4) The permittee shall submit quarterly deviation (excursion) reports that identify the following:

a. In accordance with the Monitoring and Recordkeeping Requirements established in d)(8), d)(9) and d)(10) the permittee shall submit quarterly deviation (excursion) reports that identify any of the following:

i. Each period of time (start time and date, and end time and date) when the operating temperature within the enclosed flare was outside of the range specified by the manufacturer and/or outside of the acceptable range established during performance test;

ii. Any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the enclosed flare;

iii. Each incident of deviation described in e)(4)b.i. or e)(4)b.ii. (above) where a prompt investigation was not conducted;

iv. Each incident of deviation described in e)(4)b.i. or e)(4)b.ii. where prompt corrective action, that would bring the emissions unit(s) into compliance and/or the temperature within the enclosed flare into compliance with the acceptable range, was determined to be necessary and was not taken; and

v. Each incident of deviation described in e)(4)b.i. or e)(4)b.ii. where proper records were not maintained for the investigation and/or the corrective action(s).

b. In accordance with the Monitoring and Recordkeeping Requirements established in d)(13), the permittee shall submit quarterly deviation (excursion) reports that identify any of the following:

i. All periods of time during which the pilot flame was not functioning properly or the flare was not maintained as required in this permit. The reports shall include the date, time, and duration of each such period.

c. In accordance with the Monitoring and Recordkeeping Requirements established in d)(17), d)(18) and d)(19), the permittee shall submit quarterly deviation (excursion) reports that identify any of the following:

i. Each day during which an inspection was not performed by the required frequency, excluding an inspection which was not performed due to an exemption for snow and/or ice cover or precipitation; and

ii. Each instance when a control measure that was to be implemented as a result of an inspection was not implemented.

d. In accordance with the Monitoring and Recordkeeping Requirements established in d)(11), the permittee shall submit quarterly deviation (excursion) reports that identify the following:

i. All times during which the LFG collection system was not operational;

ii. All times during when only a single H_2S treatment unit was in operation and identification of H_2S treatment unit that was not operational;

iii. All times during which both H_2S treatment units were not operational; and

iv. All times during which the enclosed flare was not operational.

e. In accordance with the Monitoring and Recordkeeping Requirements established in d)(20), the permittee shall submit quarterly deviation (excursion) reports that identify the following:

i. All days during which any visible emissions of fugitive dust were observed from asbestos-containing waste materials during on-site transportation, transfer, unloading, deposition, and/or compacting operations; and

ii. Describe any corrective actions taken to eliminate the visible emissions.

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

(5) Upon closure of the facility, the owner or operator of the active waste disposal site shall submit a copy of the records of the asbestos waste disposal locations and quantities to the appropriate Ohio EPA District Office or local air agency.

(6) The owner or operator of the active waste disposal site shall notify the appropriate Ohio EPA District Office or local air agency, in writing, at least forty-five (45) days prior to excavating or otherwise disturbing any asbestos-containing waste material that has been deposited at a waste disposal site and is covered. If the excavation will begin on a date other than the one contained in the original notice, provide notice of the new start date to the appropriate Ohio EPA District Office or local air agency at least ten (10) working days before excavation begins. In no event shall excavation begin earlier than the date specified in the original notification. Include the following information in the notice:

a. Scheduled starting and completion dates.

b. Reason for disturbing the waste.

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

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

(7) In accordance with the Monitoring and Recordkeeping Requirement specified in d)(20)b.iii., if a discrepancy between the quantity of waste designated on a waste shipment record and the quantity actually received is not resolved within 15 days, the permittee shall immediately report the discrepancy, in writing to the local, state, or U.S. EPA regional office responsible for administering the asbestos NESHAP program for the disposal site. Describe the discrepancy and attempts to reconcile it, and submit a copy of the waste shipment records along with the report to Ohio EPA.

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

(9) The permittee shall comply with the applicable reporting requirements under 40 CFR Part 61, Subpart M, including the following sections:

61.154(e)(1)(iv)	Reporting requirements for discovery of improperly enclosed or uncovered waste.
61.154(e)(3)	Waste shipment record discrepancy report.
61.154(h)	Facility closure report.
61.154(j)	Reporting requirements for excavating or disturbing deposited asbestos waste.

(10) The permittee shall notify the Northwest District Office of any load of asbestos-containing material which is rejected, or any non-conforming load disposed of in accordance with the "Asbestos Disposal Operating Procedures and Spill Contingency Plan". Notification shall be provided as soon as possible by telephone contact, followed in writing by the next working day. The written notification shall provide a copy of the waste shipment record (WSR), if available, or when waste is not shipped with a WSR, provide available information concerning vehicle identification, source of the load, a description of the load, nature of discrepancy, and the location of disposal.

(11) The permittee shall submit, or have submitted, a copy of the "Asbestos Disposal Operating Procedures and Spill Contingency Plan" required in b)(2)o. to the appropriate Ohio EPA District Office or local air agency for approval. Any subsequent revisions to the Plan shall be submitted to the appropriate Ohio EPA District Office or local air agency at the time of the revision.

(12) The permittee shall submit, or have submitted, a copy of the "Non-Regulated Asbestos Disposal Operating Procedures and Spill Contingency Plan" required in b)(2)r. to the appropriate Ohio EPA District Office or local air agency for approval. Any subsequent revisions to the Plan shall be submitted to the appropriate Ohio EPA District Office or local air agency at the time of the revision.

(13) The permittee shall submit, or have submitted, a copy of the Landfill Gas Collection and Control – Maintenance, Monitoring, and Recordkeeping Plan for the active gas collection and control systems required in b)(2)t. to the appropriate Ohio EPA District Office or local air agency for approval. Any subsequent revisions to the plan shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days of the revision to the previous plan.

(14) The permittee shall submit annual reports that include any changes to any parameter or value used in the dispersion model used to demonstrate compliance with the Toxic Air Contaminate Statute, ORC 3704.03(F), through the predicted 1 hour maximum concentration. The report should include:

a. The original model input;

b. The updated model input;

c. The reason for the change(s) to the input parameter(s); and

d. A summary of the results of the updated modeling, including the input changes; and

e. A statement that the model results indicate that the 1-hour maximum ground-level concentration is less than 80% of the MAGLC.

If no changes to the emissions, emissions unit(s), or the exhaust stack have been made during the reporting period, then the report shall include a statement to that effect.

(15) See 40 CFR Part 62, Subpart OOO (CFR 62.16710 – 16730).

(16) See 40 CFR Part 63, Subpart AAAA (40 CFR 63.1930 – 1990).

(17) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

f) Testing Requirements

(1) Within 180 days of commencing operation of the H_2S control system specified in b)(2)a.ii., the permittee shall conduct certification tests of the SO_2 CEMS in units of the applicable standard(s) to demonstrate compliance with 40 CFR Part 60, Appendix B, Performance Specifications 2 and 6; and ORC section 3704.03(I).

Personnel from the Ohio EPA Central Office and the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. Two copies of the test results shall be submitted to Ohio EPA, one copy to the appropriate Ohio EPA District Office or local air agency and one copy to Ohio EPA Central Office, and pursuant to OAC rule 3745-15-04, within 30 days after the test is completed.

Certification of the SO_2 CEMS shall be granted upon determination by the Ohio EPA, Central Office that the system meets the requirements of 40 CFR Part 60, Appendix B, Performance Specifications 2 and 6; and ORC section 3704.03(I).

Ongoing compliance with the SO_2 emission limitations contained in this permit, shall be demonstrated through the data collected as required in the Monitoring and Record keeping Section of this permit; and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the testing and certification requirements of 40 CFR Part 60.

(2) Within 180 days of commencing operation of the H_2S control system specified in b)(2)a.ii., the permittee shall conduct certification tests of the H_2S CEMS pursuant to 40 CFR Part 60, Appendix B, Performance Specification 7 and ORC section 3704.03(I).

Personnel from the Ohio EPA, Central Office and the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. Two copies of the test results shall be submitted to Ohio EPA, one copy to the appropriate Ohio EPA

District Office or local air agency and one copy to Ohio EPA Central Office, and pursuant to OAC rule 3745-15-04, within 30 days after the test is completed.

Certification of the H_2S CEMS shall be granted upon determination by the Ohio EPA, Central Office that the system meets the requirements of 40 CFR Part 60, Appendix B, Performance Specification 7 and ORC section 3704.03(I).

Ongoing compliance with the H_2S CEMS requirements contained in this permit, shall be demonstrated through the data collected as required in the Monitoring and Record keeping Section of this permit; and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the requirements of 40 CFR Part 60.

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

a. Emission testing shall be conducted within 90 days of commencing operation of the H_2S control system specified in b)(2)a.ii. in accordance with the following:

i. Emission testing shall be conducted to demonstrate compliance with the minimum of 98% reduction in H_2S concentration (by volume) in the untreated LFG. If the collected untreated LFG has an H_2S concentration equal to, or less than 10,000 ppmv, the permittee shall also demonstrate compliance with the maximum outlet concentration of H_2S (by volume) of 200 ppmv.

ii. The reduction efficiency (i.e., the percent reduction in concentration by volume) between the inlet and outlet of the H_2S control system) shall be determined using Method 15 of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

b. Emission testing shall be conducted within 180 days of commencing operation of the H_2S control system specified in b)(2)a.ii. in accordance with the following:

i. Emission testing shall be conducted on exhaust gases from the stack of the enclosed flare specified in b)(2)a.iii. to demonstrate compliance with the following:

(a) SO_2 allowable mass emission rate of 35.5 lbs/hr; and

(b) No visible emissions from the enclosed flare stack except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

ii. Emission testing shall be conducted to demonstrate compliance with the minimum destruction efficiency of 98% for VOC for the open flare specified in b)(2)a.iii.

iii. The following test(s) method(s) shall be employed to demonstrate compliance with the allowable mass emission rate and visible emissions limitation:

(a) The mass emission rate of SO_2 shall be determined using Methods 1 through 4, and Method 6 of 40 CFR Part 60, Appendix A.

(b) Method 22 of 40 CFR Part 60, Appendix A shall be used for determining compliance with the no visible emissions limitation.

(c) The destruction efficiency of 98% for VOC for the enclosed flare (i.e., the percent reduction in mass emissions between the inlet and outlet of the enclosed flare) shall be determined in accordance with the test methods and procedures specified in 3745-21-10 or an alternative test protocol approved by the Ohio EPA. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA

c. In conjunction with the SO_2 emissions testing required in f)(3)b. above, the permittee shall determine the H_2S to SO_2 conversion rate experienced in the enclosed flare using emissions test results and H_2S concentration data at the inlet to the enclosed flare using Method 15 of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

d. During the emission testing, the emissions unit shall be operated under operational conditions approved in advance by the appropriate Ohio EPA District Office or local air agency. Operational conditions that may need to be approved include, but are not limited to, the production rate, the type of material processed, material make-up (solvent content, etc.), or control equipment operational limitations (burner temperature, precipitator voltage, etc.). In general, testing shall be done under “worst case” conditions expected during the life of the permit. As part of the information provided in the “Intent to Test” notification form described below, the permittee shall provide a description of the emissions unit operational conditions they will meet during the emissions testing and describe why they believe “worst case” operating conditions will be met. Prior to conducting the test(s), the permittee shall confirm with the appropriate Ohio EPA District Office or local air agency that the proposed operating conditions constitute “worst case”. Failure to test under the approved conditions may result in Ohio EPA not accepting the test results as a demonstration of compliance.

e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air 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 Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

f. Personnel from the appropriate Ohio EPA District Office or local air 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 appropriate Ohio EPA District Office or local air 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 appropriate Ohio EPA District Office or local air agency.

(4) 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: Enclosed flare shall be designed and operated to achieve a minimum destruction efficiency of 98% for VOC.

Applicable Compliance Method: The permittee shall demonstrate compliance with the minimum VOC destruction efficiency by conducting emission testing in accordance with the requirements of section f)(3)b.ii.

b. Emission Limitation: Enclosed flare shall be designed and operated with no visible emissions except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

Applicable Compliance Method: The permittee shall demonstrate compliance with the no visible emissions restriction by conducting emission testing in accordance with the requirements of section f)(3)b.i.(b).

c. Emission Limitation: Enclosed flare shall be designed and operated to operate to achieve a minimum of 98% conversion of all H_2S (contained in the treated LFG) to SO_2.

Applicable Compliance Method: The permittee shall demonstrate compliance with the minimum conversion rate by conducting emission testing in accordance with the requirements of section f)(3)c.

d. Emission Limitation: SO_2 emissions from the enclosed flare shall not exceed 35.5 lb/hr, as a 24-hour daily average, during normal operations.

Applicable Compliance Method: Compliance with the hourly SO_2 emission limitation shall be based on the on the emissions testing requirements in section

f)(3)b.i.(a) and the monitoring and record keeping requirements specified in section d)(1) through d)(3) and d)(12).

e. Emission Limitation: SO_2 emissions from the enclosed flare shall not exceed 20.5 lbs/hr, as a 24-hour daily average, when only one of the two H_2S control system trains is operational

Applicable Compliance Method: Compliance with the hourly SO_2 emission limitation shall be based on the monitoring and record keeping requirements specified in section d)(1) through d)(3) and d)(12).

f. Emission Limitation: SO_2 emissions from the 125-foot open flare shall not exceed 497.2 lbs/hr, as a 24-hour daily average, during periods of startup, shutdown and maintenance when only one of the two H_2S control system trains is operational

Applicable Compliance Method: Compliance with the hourly SO_2 emission limitation shall be based on the monitoring and record keeping requirements specified in sections d)(1) through d)(3) and d)(12).

g. Emission Limitation: SO_2 emissions from the 125-foot open flare shall not exceed 870 lbs/hr, has a 24-hour daily average, during periods of startup, shutdown and maintenance of the H_2S control system and enclosed flare

Applicable Compliance Method: Compliance with the hourly SO_2 emission limitation shall be based on the monitoring and record keeping requirements specified in sections d)(1) through d)(3) and d)(12).

h. Emission Limitation: The combined H_2S emissions from the enclosed flare (stack), the 125-foot flare (stack) and from the landfill surface (fugitive) shall not exceed 146.95 tons per rolling 12-month period.

Applicable Compliance Method: The emission limitation is based the following calculated H_2S potential to emit emission rates:

i. 0.04 lb/hr from the enclosed flare (stack) during normal operations

ii. 0.02 lb/hr from the enclosed flare (stack) when only one of the two H_2S control system trains is operational

iii. 0.79 lb/hr from the 125-foot open flare (stack) during periods of startup, shutdown and maintenance of the H_2S control system and enclosed flare

iv. 1.384 lbs/hr from the 125-foot open flare (stack) during periods of H_2S control system startup, shutdown and maintenance periods.

v. 32.6 lbs/hr from the landfill surface (fugitive) during normal operations and during periods of startup, shutdown and maintenance when only one of the two H_2S control system trains is operational.

vi. 192.8 lbs/hr from the landfill surface (fugitive) during periods of startup, shutdown and maintenance of the H_2S control system and enclosed flare.

The potential to emit emission rates for H_2S were calculated by applying reductions for LFG capture and control requirements to an uncontrolled H_2S emission rate of 652 lb/hr. The uncontrolled H_2S emission rate was determined based on the following:

i. H_2S generation rate using the Environmental Research and Education Foundation (EREF) H_2S generation model below:

$$Q_{H2S} = \sum_{i=1}^{n} kS_oM_i\left(e^{-kt^i}\right)$$

Where:

Q_{H2S} = H_2S generation rate from the landfill, cubic feet per year
k = H_2S generation rate constant, yr^{-1}
S_o = H_2S generation potential, cubic feet of H_2S per ton of waste
M_i = Mass of sulfur deposited in the n^{th} year, tons
t_i = age of waste, years

Historical landfill data was applied for sulfur deposited and for determining generation rate constant, and the generation potential.

and

ii. Historical H_2S concentration and LFG data were applied to generate an H_2S potential to emit of 652 lb/hr projected in 2027.

The permittee shall demonstrate compliance with this emission limitation based on the waste acceptance rate, as determined from the monitoring and recordkeeping requirements specified in d)(15) and compliance with the LFG capture and control requirements.

i. Emission Limitation: SO_2 emissions shall not exceed 337.6 tons per rolling 12-month period. The annual emission limitation applies to all SO_2 emissions emitted from the enclosed flare and open flare including periods of startup, shutdown, and maintenance of the H_2S control system.

Applicable Compliance Method: Compliance annual limitation shall be based on the monitoring and record keeping requirements specified in sections d)(1) through d)(3) and d)(12).

j. Emission Limitation: Fugitive/Uncontrolled Landfill Gas: 4.60 tons fugitive VOC per rolling, 12-month period

Applicable Compliance Method: The emission limitation is based on the highest gas generation/emissions rate which could occur at this facility and can be documented as follows:

i. NMOC emissions were calculated by Landfill Gas Emission Model (LandGEM). The predicted NMOC emissions were converted to VOC

emissions by applying the AP-42 Chapter 2.4 (11/98) conversion rate of 39%, plus a 15% safety factor to account for variation in the gas stream.

ii. LFG collection system capture efficiencies, based on engineering design:

(a) 95% for North landfill unit (closed cell); and

(b) 90% for South landfill unit (active cell)

iii. A maximum operating schedule of 8,760 hours/year

iv. Waste Acceptance Rates

(a) North landfill unit (closed cell) – actual waste acceptance data

(b) South landfill unit (active cell) – actual waste acceptance data and projected waste acceptance rate based on maximum daily waste receipt rate for the landfill not exceed to exceed 7,500 tons of total waste, including MSW and C&DD material.

The permittee shall demonstrate compliance with this emission limitation based on the waste acceptance rate, as determined from the monitoring and recordkeeping requirements specified in d)(15) and the monthly emissions monitoring and recordkeeping requirements specified in d)(14).

k. Emission Limitation: Enclosed Flare Combustion Emissions: 17.0 pounds $PM_{10}/10^6$ dscf methane

Applicable Compliance Method: The above flare combustion emission limitations were established based on the emission factors from AP-42 Chapter 2.4, Municipal Solid Waste Landfills (11/98).

l. Emission Limitation: Enclosed Flare Combustion Emissions: 0.20 pound CO per mmBtu of methane gas combusted

Applicable Compliance Method: The above flare combustion emission limitations were established based upon a manufacturer guaranteed emission factor. If required, compliance with the lb/mmBtu emission limitation shall be determined in accordance with Methods 1-4 and 10 of 40 CFR, Part 60, Appendix A.

m. Emission Limitation: Enclosed Flare Combustion Emissions: 0.06 lb pound NOx per mmBtu of methane gas combusted

Applicable Compliance Method: The above flare combustion emission limitations were established based upon a manufacturer guaranteed emission factor. If required, compliance with the lb/mmBtu emission limitation shall be determined in accordance with Methods 1-4 and 7 of 40 CFR, Part 60, Appendix A.

n. Emission Limitation: Open flare shall be designed and operated to achieve a minimum destruction efficiency of 98% for VOC.

Applicable Compliance Method: Compliance shall be demonstrated using the information from U.S. EPA's Flare Efficiency Study – EPA-600/2-83-052 (July 1983)

o. Emission Limitation: Open Flare Combustion Emissions: 17.0 pounds PM_{10} /10^6 dscf methane

Applicable Compliance Method: The above flare combustion emission limitations were established based on the emission factors from AP-42 Chapter 2.4, Municipal Solid Waste Landfills (11/98).

The following is being presented for informational purposes:

The federally enforceable, potential, annual PM_{10} emissions from the flare can be estimated using the following calculation:

lbs pollutant (1)	1867 dscf (2)	0.40 (3)	60 mins	8760 hours	1 ton
10^6 scf methane	minute		hour	year	2000 lbs

Where:

(1) AP-42 Chapter 2.4, Municipal Solid Waste Landfills (11/98).
(2) Maximum landfill gas flow rate.
(3) 40% landfill gas methane component.

p. Emission Limitation: Open Flare Combustion Emissions: 0.068 pound NOx/mmBtu and 0.37 pound CO/mmBtu

Applicable Compliance Method: The above flare combustion emission limitations were established based on the emission factors from AP-42 Chapter 13.5, Industrial Flares (9/91).

The following is being presented for informational purposes:

The federally enforceable, potential annual NOx and CO emissions from the flare can be estimated using the following calculation:

lbs pollutant (1)	68.54 mmBtu (2)	8760 hours	1 ton
mmBtu	hour	year	2000 lbs

Where:

(1) AP-42 Chapter 13.5, Industrial Flares (9/91).
(2) Maximum heat input to flare.

q. Emission Limitation: Visible fugitive PE from the landfill and construction operations shall not exceed 20% opacity, as a three-minute average.

Applicable Compliance Method: If required, compliance with the visible PE limit shall be determined by visible emission evaluations performed in accordance with USEPA Reference Method 9 as set forth in "Appendix A on Test Methods" in 40

CFR Part 60 ("Standards of Performance for New Stationary Sources") and the modifications listed in paragraphs (B)(3)(a) and B)(3)(b) of OAC rule 3745-17-03.

r. Emission Limitation: There shall be no visible emissions to the outside air from asbestos-containing waste materials during the on-site transportation, transfer, deposition, or compacting operations.

Applicable Compliance Method: If required, compliance with the visible PE limit shall be determined in accordance with USEPA Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR Part 60 ("Standards of Performance for New Stationary Sources").

g) Miscellaneous Requirements

(1) Inactive Waste Disposal Site Requirements

The permittee shall comply with the following provisions of OAC rule 3745-20-07 for inactive waste disposal sites:

a. Each owner or operator of an inactive asbestos waste disposal site shall either:

i. Discharge no visible emissions to the outside air from an inactive waste disposal site; or

ii. Cover the asbestos-containing waste material with at least six (6) inches of non-asbestos- containing material, and grow and maintain a cover of vegetation on the area adequate to prevent exposure of the asbestos-containing waste material; or

iii. Cover the asbestos-containing material with at least two (2) feet of compacted non-asbestos-containing material and maintain the cover to prevent exposure of the asbestos-containing waste material.

b. Unless a natural barrier adequately deters access by the general public, each owner or operator of an inactive asbestos waste disposal site shall install and maintain warning signs and fencing as follows or comply with g)(1)a.ii. or g)(1)a.iii.:

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

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

(b) Conform to the requirements for a twenty inch by fourteen inch (20 x 14) upright format warning sign and display the following legend in the lower panel with letter sizes of at least one (1) inch sans serif, gothic, or block. Spacing between any two lines must be at least equal to the height of the upper of the two lines:

"ASBESTOS WASTE DISPOSAL SITE

DO NOT CREATE DUST

BREATHING ASBESTOS IS HAZARDOUS

TO YOUR HEALTH"

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

(d) Upon request and submission of appropriate information, the director will determine whether a fence or a natural barrier adequately deters access by the public.

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

c. The owner or operator may use an alternative control method that has received prior approval of the director rather than comply with the requirements of g)(2)a. or g)(1)b.

d. Each owner or operator of an inactive waste disposal site shall notify the director, in writing, at least forty-five (45) days prior to excavating or otherwise disturbing or removing any asbestos-containing waste material. If the excavation will begin on a date other than the one contained in the original notice, notice of the new start date must be provided to the director at least ten (10) working days before excavation begins. In no event shall excavation begin earlier than the date specified in the original notification. Each owner or operator shall include the following information in the notice:

i. Scheduled starting and completion dates.

ii. Reason for disturbing the waste.

iii. Procedures to be used to control emissions during the excavation, storage, transport, and ultimate disposal of the excavated asbestos-containing material. If deemed necessary, the director may require changes in the emission control procedures to be used.

iv. Location of any temporary storage site including names and address(es) and the final disposal site.

e. Within sixty (60) days of a site becoming inactive, record a notation of the presence of asbestos-containing material on the deed to the facility property and on any other instrument that would normally be examined during the title search; this notation will, in perpetuity, notify any potential purchaser of the property that:

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

ii. The survey plot and record of the location and quantity of asbestos-containing waste disposed of within the disposal site required in paragraph (C)(2) of rule 3745-20-06 of the Ohio Administrative Code has been filed with the director; and

iii. The site is subject to Chapter 3745-20 of the Ohio Administrative Code and 40 CFR Part 61, Subpart M.

(2) The permittee shall comply with the requirements for inactive waste disposal sites for asbestos mills and manufacturing and fabricating operations required under 40 CFR Part 61, Subpart M, including the following sections:

Emission Limitations and Additional Restrictions:	
61.151(a)(1); or	Visible emission restriction.
61.151(a)(2); or	Coverage and/or vegetation requirements.
61.151(a)(3); or	Coverage requirement.
61.154(a)(4); and	Dust suppressant requirement.
61.154(b); or	Natural barrier, sign, and/or fencing requirements.
61.154(c)	Alternative control method requirements.
Monitoring and/or Recordkeeping Requirements:	
61.151(e)	Deed recordkeeping requirements.
Reporting Requirements:	
61.151(d)	Reporting requirements for excavating or disturbing deposited asbestos waste.

(3) There shall be no open burning in violation of Ohio Administrative Code rule 3745-19 at this facility.