



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

12/01/2021

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

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

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

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA) Air Pollution Permit-to-Install (PTI) which will allow you to install or modify the described emissions unit(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, we urge you to read it carefully. Because this permit contains conditions and restrictions, please read it very carefully. In this letter, you will find the information on the following topics:

- **How to appeal this permit**
- **How to save money, reduce pollution and reduce energy consumption**
- **How to give us feedback on your permitting experience**
- **How to get an electronic copy of your permit**
- **What should you do if you notice a spill or environmental emergency?**

How to appeal this permit

The issuance of this PTI is a final action of the Director and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00, made payable to "Ohio Treasurer Robert Sprague," which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
 30 East Broad Street, 4th Floor
 Columbus, OH 43215

How to save money, reduce pollution and reduce energy consumption

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. Additionally, all or a portion of the capital expenditures related to installing air pollution control equipment under this permit may be eligible for financing and state tax exemptions through the Ohio Air Quality Development Authority (OAQDA) under Ohio Revised Code Section 3706. For more information, see the OAQDA website: www.ohioairquality.org/clean_air

How to give us feedback on your permitting experience

Please complete a survey at www.epa.ohio.gov/survey.aspx and give us feedback on your permitting experience. We value your opinion.

How to get an electronic copy of your permit

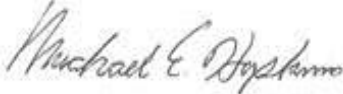
This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

What should you do if you notice a spill or environmental emergency?

Any spill or environmental emergency which may endanger human health, or the environment should be reported to the Emergency Response 24-HOUR EMERGENCY SPILL HOTLINE toll-free at (800) 282-9378. Report non-emergency complaints to the appropriate district office or local air agency.

If you have any questions regarding your permit, please contact at Ohio EPA DAPC, Northwest District Office at (419)352-8461 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,



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

cc: U.S. EPA
Ohio EPA-NWDO; Michigan; Canada



Response to Comments

Facility ID:	0374010199
Facility Name:	Sunny Farms Landfill
Facility Description:	Refuse Systems
Facility Address:	12500 West County Road 18 Fostoria, OH 44830 Seneca County
Permit:	P0128797, Permit-To-Install - Administrative Modification
A public notice for the draft permit issuance was published in the Ohio EPA Weekly Review and appeared in The Advertiser Tribune on 07/30/2021. The comment period ended on 08/29/2021.	
Hearing date (if held)	08/30/2021
Hearing Public Notice Date (if different from draft public notice)	08/18/2021

The following comments were received during the comment period specified. Ohio EPA reviewed and considered all comments received during the public comment period. By law, Ohio EPA has authority to consider specific issues related to protection of the environment and public health. Often, public concerns fall outside the scope of that authority. For example, concerns about zoning issues are addressed at the local level. Ohio EPA may respond to those concerns in this document by identifying another government agency with more direct authority over the issue.

In an effort to help review this document, the questions are grouped by topic and organized in a consistent format; comments are in bold type, responses in plain type. PDF copies of the original comments in the format submitted are available upon request.

The permit applicant (Sunny Farms Landfill) submitted eight comments

1. Topic: MMRP as BACT Requirements

Condition b) (2) a. i – The entire Landfill Gas Collection and Control System - Maintenance, Monitoring, and Recordkeeping Plan (MMRP) maintenance should not be cited in its entirety as Best Available Control Technology (BACT) requirements for sulfur dioxide (SO₂) and hydrogen sulfide (H₂S) in the collected landfill gas and fugitive H₂S emission control. Citing the entire MMRP inappropriately includes non-BACT-based odor control requirements derived from the Solid Waste Injunctive Relief provisions of the 2019 partial consent order. The “project” that is the subject of this control technology analysis involves reducing H₂S emissions from Sunny Farms Landfill (SFL) by collecting and combusting landfill gas (LFG) in a flare. This was the fundamental objective and basic design premise of the project that is the subject of the control technology review presented herein and the analysis presented below was developed in this context. As such, the draft permit should reference only those relevant MMRP sections that incorporate elements of NSPS Subpart XXX including Section 1.2 Landfill Gas Control and Collection System (GCCS) Description, Section 1.3 Regulatory Status, Section 2.2 Wellheads, Section 2.3 Lateral Piping, Section 3.1 Wellfield Operating Standards, Section 3.2 Wellfield Monitoring, Section 4.2 Surface Emission Monitoring Program.



Ohio EPA agrees that only the Sections of the MMRP addressing the elements of NSPS Subpart XXX should be cited as BACT. The permit has been updated to reflect this.

2. Topic: Piping Configuration/CEMS Location

Condition d) (1) – To clarify the H₂S Continuous Emission Monitoring System (CEMS) location at the inlet of the open flare, add “prior to H₂S treatment system and open flare” after “For the CEMS located at the common piping manifold, . . .”

Condition d) (3) – Clarified H₂S continuous emissions monitoring CEM location at the inlet of the open flare per comment two (2) above.

The requested changes have been made.

3. Topic: CEMS Data Points

Condition d) (3) a. – The minimum CEMS cycle time should be 15 minutes, -- not 1 minute. One (1) data point per minute is not technically feasible with gas chromatograph-(GC) based analyzers used to determine H₂S concentrations. The requested change also is consistent with New Source Performance Standards (NSPS) Part 60 CEMS minimum CEMS data recording average of at least one (1) data point for each 15-minute period.

Ohio EPA agrees this is technically infeasible for this particular CEMS cycle time. GC-based analyzers cannot collect one data point per minute since a GC analyzer is used. Therefore, the requested change has been made.

4. Topic: Request State-Only Enforceability for MMRP Monitoring and Recordkeeping

Conditions d)(4) and d)(5) – These conditions contain monitoring and recordkeeping requirements related to the MMRP. As noted in comment one (1) above, to the extent Ohio EPA is concerned about including the very stringent solid waste-based operating requirements and 2019 partial consent order provisions of the MMRP into the draft permit, the MMRP should be incorporated as a “STATE ONLY” requirement. This includes the monitoring and recordkeeping obligations of the MMRP; otherwise, Ohio EPA is inappropriately making these MMRP terms Federally enforceable conditions of SFL’s air permit.

See response to Topic 1 “MMRP as BACT Requirements.”

5. Topic: Pilot Flame Clarification

Condition d) (13) – Clarified that recording periods when pilot flame is not present or flare not operational applies when LFG is being vented to the flares.

The requested change has been made.



6. Topic: Request State-Only Enforceability for MMRP Deviation Reporting

Condition e)(3) – This condition contains quarterly deviation reporting requirements related to the MMRP. As noted in comment one (1) above, to the extent Ohio EPA is concerned about including the provisions of the MMRP into the draft permit, the MMRP should be incorporated as a “STATE ONLY” requirement. This includes the reporting obligations of the MMRP; otherwise, Ohio EPA is inappropriately making these MMRP terms a federally-enforceable conditions of SFL’s air permit.

See response to Topic 1 “MMRP as BACT Requirements.”

7. Topic: CEMS Language

Condition f) (1) This condition references an SO₂ CEMS and can be removed as H₂S CEMS will be installed and used to determine SO₂ emissions.

Condition f)(1) was updated to reflect that an H₂S CEMS is located at the inlet to the open flare. Condition f)(2) was updated to reflect a separate H₂S CEMS is located at the inlet to the enclosed flare.

Seneca County General Health District submitted 13 comments

8. Topic: NAAQS Concern

Condition C.1.b)(2) on pages 6-7 of 39 includes (BACT) conditions intended to satisfy Federal Prevention of Significant Deterioration (PSD) requirements including the requirement to be protective of the National Ambient Air Quality Standard (NAAQS) for SO₂. In ambient air, the primary NAAQS for SO₂ is defined as being met when the 99th percentile of 1-hour daily maximum SO₂ concentrations, averaged over three years, is less than or equal to 75 parts per billion (ppb).

The draft language specifies separate maximum SO₂ emission rate limits for normal operating conditions and for conditions of startup, shutdown, and maintenance of one treatment system. The emission rate limits are defined in terms of pounds per hour as a 24-hour daily average. Although the percentile and annual averaging effects applied to the 1-hour NAAQS averaging do allow for occasional exceedances of the numerical standard to occur, it is not clear how emission limits defined over 24-hour averaging intervals can be related to an incongruent NAAQS standard. It would be simpler and more protective of public health to specify pound per hour limits that apply without daily averaging – especially in the context of retroactive PSD permitting.

The modeling conducted for this permit application was highly conservative. The modeling took into consideration other high SO₂-emitting facilities located within a particular geographic range around Sunny Farms Landfill. The results demonstrated that the maximum impact from this project was considerably lower than the 1-hour NAAQS limit and will not cause a degradation to the ambient air quality; therefore, Ohio EPA believes it is more appropriate to keep the proposed 24-hour limit as it will still be protective to human health and the environment.



In a typical PSD modeling assessment, cumulative modeling would only be conducted after establishing a significant impact area (SIA) for the new project. This is done by modeling only the new project itself and determining the receptors at which the project exceeds the significant impact level (SIL) for each pollutant that will be emitted at the pollutant-specific significant emission rate (SER). The modeling conducted by Sunny Farms Landfill did not consider an SIA analysis, but rather modeled across a 25 x 25 km receptor grid. By doing so, this approach placed receptors near to or potentially within the property boundary of offsite sources included in the cumulative modeling analyses. In the case of SFL, this conservative approach to the receptor grid led to conservative modeled results.

For the 1-hour SO₂ NAAQS modeling conducted for SFL, the maximum modeled concentration, including a background of 6 ppb (15.7 mg/m³), was 166.8 mg/m³, well below the 1-hour SO₂ NAAQS of 196.2 mg/m³. This concentration was modeled approximately 24 kilometers distant from the SFL flare, approximately 600 meters to the northeast of the Carmeuse Lime Maple Grove facility; more than 99 percent of this modeled design value was the result of modeled emissions from the Carmeuse Lime Facility itself. Were the modeling analysis conducted after a SIL/SIA analysis of SFL, maximum modeled design values would be considerably less.

When the modeled impacts of SFL are considered alone, the maximum modeled design value was 24.25 mg/m³, including background. This modeled impact is approximately 12 percent of the NAAQS. To place this modeled design value into context, it is instructive to examine the maximum modeled design value of each offsite source modeled near the maximum modeled design value for SFL, disregarding that these impacts are highly unlikely to occur at the same time and location simultaneously. The maximum design value for Carmeuse Lime in the vicinity of SFL's maximum design value was 21.5 mg/m³, and the maximum design value for Martin Marietta Magnesium was 16.4 mg/m³. Including background, a worst-case design value from these facilities and background sources would be 53.6 mg/m³. For a theoretical exceedance of the 196.2 mg/m³ standard to occur, hourly emissions from SFL would need to increase approximately 17 times the 24-hour average limit, from 35.5 lbs/hour to 592 lbs/hour.

This alone would not constitute an exceedance of the standard, which as noted by the commentor is a probabilistic standard based on the 99th percentile maximum daily one-hour values averaged over three years. Thus, for an actual exceedance of the NAAQS to occur, maximum impacts from both Martin Marietta Magnesium and Carmeuse Lime would need to occur near to Sunny Farms maximum impacts and during a time when SO₂ emissions from Sunny Farms are approximately 17 times higher than the permitted limit. Further, this situation would need to occur for at least one hour on four different days from each of three consecutive years for an exceedance of the NAAQS to occur. Ohio EPA contends that this set of circumstances is highly improbable and that, given the probabilistic form of the 1-hour SO₂ NAAQS, an hourly SO₂ emissions limit for Sunny Farms is unnecessary for the protection of human health and the environment.



9. Topic: Permitted Operating Scenarios (2 comments)

Clarify the relationship between the normal SO₂ emission limitation and those during startup, shutdown and maintenance and add two operating scenarios: (1) malfunctions and (2) other periods when no landfill gas treatment is occurring.

The H₂S control system will not be operated when the enclosed flare is offline, so all three operating scenarios are addressed. For clarity, the following language was added to terms and conditions C.1.b)(2)a. v. and b)(2)a.vii. "It should be noted that the H₂S control system will be offline during all periods of time when the enclosed flare is down for maintenance." When the enclosed flare is offline, the open flare will be used for treatment and control of the landfill gas. All malfunctions are required to be addressed through the procedures specified in OAC rule 3745-15-06(B).

10. Topic: Permitted Operating Scenarios (2 comments)

Clarify the relationship between the normal SO₂ emission limitation and those during startup, shutdown and maintenance. Please add two operating scenarios: (1) malfunctions and (2) other periods when no landfill gas treatment is occurring.

The H₂S control system will not be operated when the enclosed flare is offline, so all three operating scenarios are addressed. For clarity, the following language was added to terms and conditions C.1.b)(2)a. v. and b)(2)a.vii. "It should be noted that the H₂S control system will be offline during all periods of time when the enclosed flare is down for maintenance." When the enclosed flare is offline, the open flare will be used for treatment and control of the landfill gas. All malfunctions are required to be addressed through the procedures specified in OAC rule 3745-15-06(B).

11. Topic: Deviation as Percentage and Temperature Recording

Percentage deviation is a poor way to express or control temperature values that may cross zero or be interpreted in different units, and 5 percent deviation is an excessive threshold. Additionally, the temperature be measured in accordance with the federal NSPS/NESHAP standards and the thermal oxidizer temperature be recorded in degrees Celsius stating that "newer federal standards contain a conversion error from degrees Celsius to degree Fahrenheit."

The permit specifically requires the temperature to be monitored in degrees Celsius so the values cannot be interpreted in different units. Both 40 CFR, Part 62, Subpart OOO and 40 CFR, Part 63, Subpart AAAA allows for a temperature differential of "28 degrees Celsius (82 degrees Fahrenheit)." Ohio EPA believes U.S. EPA intended the calculation to be done in degree Celsius so we have modified the terms to make that clear.



12. Topic: Setting the Initial Temperature

Interim temperature should be set until performance testing is conducted. The timing for testing is unclear.

Ohio EPA disagrees that the timing of the initial performance testing is unclear. Testing cannot be completed until the control equipment is installed and the timing of the initial performance test is outlined in the 2019 partial consent order. The permit sets an initial temperature by requiring the permittee to comply with the manufacturer recommendations. In this case, the recommended operating temperature is 1,600 degrees Fahrenheit. For clarity, Ohio EPA has included the following sentence in d)(1) proposed language: "...Per the manufacturer specifications, the appropriate minimum temperature shall be 1,600F, as a 3-hour block average..."

13. Topic: Sulfur Conversion Calculation (3 comments)

The calculation C.1.d)(15) should clarify that the S (ppmv) is the sum of the concentrations of sulfur compounds listed.

The equation and explanation of "S" have been updated as follows: " SO_2 lb/hr = $\sum[(\text{LFG flow rate, in scfm}) \times \text{S (ppmv)} \times (1.685 \times 10^{-7}) \times (60 \text{ mins/hr}) \times 0.997 \times \text{MC}_{\text{LFG}}]$ " and "S: Sulfur concentration of each sulfur containing compound."

The H₂S concentration must be adjusted to the molecular weight of sulfur and that the conversion equation/constants should be specified in the permit.

The conversion equations are specified in the permit. The 1.685×10^{-7} is the conversion streamlined. A more detailed explanation of the conversion factor is given below the equation in the permit.

The H₂S concentration data is measured on a dry basis and the flow to the open flare is on a wet basis measurement; Ohio EPA should ensure that the permit requires appropriate adjustments to be made.

The equation has been updated to include the average moisture content of the LFG.



14. Topic: Federal Requirements (2 comments)

The design, operating, monitoring, and reporting requirements of the applicable implementation plan for NSPS Subparts WWWW and Cf should be incorporated in this permit in detail to ensure requirements from the partial consent order are not mistakenly taking the place of the NSPS conditions.

Ohio EPA disagrees that additional language is required in the permit. The facility is subject to the Federal plan under 40 CFR, Part 62, Subpart OOO. Additionally, the requirements of 40 CFR, Part 60, Subpart Cf are implemented through the requirements of 40 CFR, Part 62, Subpart OOO. The requirements of 40 CFR, Part 62, Subpart OOO have been incorporated into the draft permit. The permit specifies that the permittee must comply with all applicable requirements associated with this federal standard. Terms and conditions associated with the partial consent order are included in the permit but do not take the place of the compliance with the Federal standards, nor do they provide relief from the federal standards. The requirements associated with the partial consent order are additional requirements imposed on the facility and in some cases are more stringent than the Federal standards; 40 CFR, Part 62, Subpart OOO supersedes the requirements of NSPS Subpart WWWW, as such, the permit NSPS Subpart WWWW is not cited in the draft permit

Require SFL to submit the Gas Collection and Control System (GCCS) design plan within three months and construct and implement the GCCS design within 12 months, based on the opinion of subject matter experts. This request is based on the fact that the facility exceeded the 50 Mg/yr NMOC generation threshold years ago and, as such, missed the 1-year and 30-month timeframes allowed under NSPS Subparts WWWW and Cf.

NSPS Cf states that the GCCS “must be completed within 30 months after the date a non-methane organic compound (NMOC) emission rate report shows NMOC emissions equal or exceed 34 megagrams per year (50 megagrams per year for the closed landfill subcategory);” therefore, the rule defines when the GCCS must be completed (within 30 months after the report date). Ohio EPA does not have the authority to change a timeframe identified in the Federal regulation. Additionally, it is inappropriate to shorten the allowable timeline when the Federal regulation did not take effect until June 21, 2021. Sunny Farms Landfill is required to submit the GCCS design plan by no later than Jan. 7, 2022. Again, NSPS WWWW is no longer applicable.

15. Topic: MMRP

Seneca County General Health District submitted four comments regarding the facility’s Maintenance, Monitoring and Recordkeeping Plan (MMRP), which included concerns with the implementation of federal requirements.

The MMRP is being used as a supplement to, not a replacement for, the Federal regulatory requirements. Additionally, SFL is required to submit a revised MMRP 30 days prior to startup of the control equipment. Ohio EPA will take these comments into consideration when reviewing and approving the revised MMRP. The MMRP will always need to meet the applicable minimum Federal standards.



16. Topic: Backup Flare Operations

Require SFL to regularly operate or test the backup flare for readiness to ensure it remains operable. Like engines, flares tend not to be reliable when not operated regularly.

Ohio EPA disagrees that the flare must be operated frequently to be considered reliable. The permit requires a pilot flame to be present at all times when gases are vented to it. Unlike an engine, a flare does not have moving parts, if the pilot is lit, the flare will be operated in a reliable manner.

U.S. EPA Region V submitted 2 comments

17. Topic: Incorporation of National Emission Standards for Hazardous Air Pollutants (NESHAP) AAAA Requirements

For operational restrictions, monitoring and/or recordkeeping requirements, and reporting requirements for NESHAP Subpart AAAA, permit conditions C.1.c)(5), C.1.d)(28), and C.1.e)(16) cite 40 CFR 1930-1990. These permit conditions should provide more specific citations to the Subpart AAAA that are applicable to this source.

The "incorporation by reference" approach used is done in accordance with Ohio EPA Engineering Guide #76. Detailed requirements of NESHAP Subpart AAAA will be incorporated into the Title V operating permit.

18. Topic: Typographical Errors

In the list of conditions cited in permit condition C.1.a)(1), "n)(2)o." should say "b)(2)o.". Please check each of the citations in this permit condition for accuracy.

The permit term has been updated to read "b)(2)o." All citations have been rechecked for accuracy.

**A total of three testimonies were provided during the August 30, 2021, public hearing.
A total of 14 other letters and emails were received during the public comment period.**

19. Topic: Monitoring and Oversight of the Incoming Waste Material

Who monitors what is dumped in the landfill?

SCGHD and Ohio EPA regulate the landfill operations and ensure that all operational requirements, including the completion of the daily log, are done in accordance with applicable regulations. Sunny Farms is required to comply with the disposal restrictions in Ohio Administrative Code 2745-27-19(E)(8).

20. Topic: Landfill Impartial Oversight and Regulation

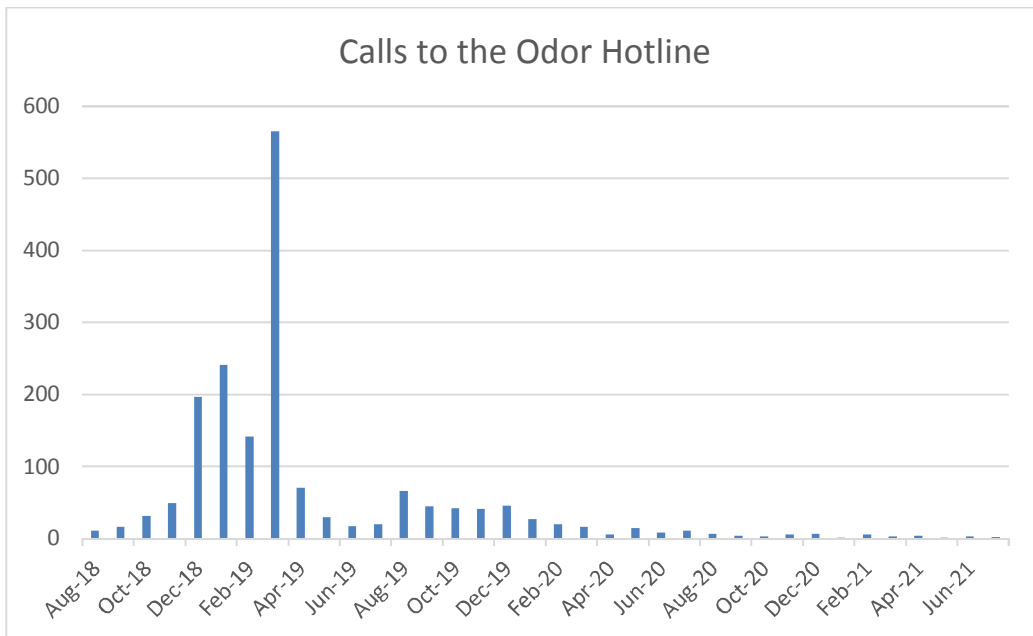
Are the regulators of the landfill impartial?

Numerous regulatory agencies have authority to regulate SFL; agencies including the SCGHD and Ohio EPA. Each agency is committed to an unbiased oversight of the landfill to ensure compliance with applicable regulations and protection of the environment and human health. Checks and balances are in place to ensure each agency is performing its oversight fairly and impartially. Ohio EPA annually audits SCGHD solid waste program and U.S. EPA oversees the Ohio EPA's air pollution control permitting and compliance programs.

21. Topic: Odors

Commentors expressed concerns related to the odors from Sunny Farms Landfill.

The enforcement actions taken by Ohio EPA in 2019 have resulted in significant improvements to the site's odor control. The below graph document these improvements with objective data. This permitting action requires Sunny Farms Landfill to install control equipment to reduce emissions of SO₂ and continue to maintain odor control for both H₂S -- rotten egg odor and SO₂ -- struck match odor. Ohio EPA continues to encourage any citizen that experience unacceptable odors deemed to be emanating from the SFL to notify Ohio EPA and SCGHD by calling the "Odor Control Hotline" 1-866-419-8639 and providing a detailed description of the time and location of the odor.





22. Topic: Opposition to Landfill Continuing to Operate

SFL should not continue to operate.

This permit imposes restrictions and limitations on the landfill and requires enhanced treatment for SO₂ emissions. This permit does not include a landfill expansion or an increase in the landfill's permitted life; regardless, Ohio EPA may not consider the popularity of the operation of a facility as a component of a permit review.

23. Topic: Determination of BACT

Were other control technologies were considered and, if so, was the Lo-Cat Method determined to be the most efficient for removing H₂S?

Yes. A BACT analysis was required to be performed and submitted with the permit application. The first step of the BACT analysis is to identify all available control options that might be used to reduce emissions of the pollutant for the type of unit.

The BACT analysis looked at all available options for reducing H₂S and SO₂ emissions at the landfill. The treatment methods for removing H₂S from LFG generally fall into two categories (1) use of disposable media to adsorb or react with H₂S or (2) use of a regenerative scrubbing media to remove H₂S from the landfill gas. Sunny Farms Landfill is currently operating an interim disposable media system due to the high H₂S content, the media life is quite short requiring more frequent downtime to change out disposable media; as such, the regenerative scrubbing method was determined to be BACT.

24. Topic: Sizing of the Sulfur Removal System

Is the sulfur removal system designed to accommodate the landfill as permitted?

Yes. The design of the sulfur removal system required by this permit was based on the final design capacity of the landfill under the existing landfill permit. If the landfill requests approval to expand beyond its current permitted limits in the future, this permit and associated system will need to be reassessed based on the request.

25. Topic: SO₂ Emissions

Will SO₂ emissions increase to 4,000 to 5,000 tons/year?

No. This permit and the required treatment technology will govern the limit of SO₂ emissions and require that the annual rolling average not exceed 337.6 tons per year once the new technology is in place and operational.



26. Topic: Interim Measures Being Taken

There are concerns with potential immediate health concerns to the public while the new control system is being installed.

The July 2019 consent agreement required SFL to install and operate a fixed bed landfill gas treatment system as interim control measures and elevate the height of the flare until the permanent H₂S treatment system is installed. Computer modeling was conducted to demonstrate that the interim control measures were protective of human health and the environment. The modeling results demonstrated that the interim control measures did not exceed the 1-hour NAAQS for SO₂. Sampling is also conducted by Ohio EPA to measure the concentrations of SO₂ at ground level outside the facility boundary.

27. Topic: Health Concerns/Long-Term Health Impacts

The permit application does not consider the landfill's long-term health impacts.

Ohio EPA issues and enforces permits for installation and operation of sources of air pollution as a component of ensuring compliance with applicable air pollution rules and regulations. Air pollution rules and regulations include health-based air quality standards based on the latest science and available technologies to protect human health as well as the environment in both the short- and long-term. Compliance with this permit will ensure public health and welfare will be protected both in the short- and long-term.

28. Topic: Monitoring/Emissions Measured (2 comments)

What are current monitoring practices?

Ohio EPA operates two continuous SO₂ monitors, one onsite and one offsite. The offsite monitor measures the ambient air quality to ensure that the SO₂ NAAQS are being met. Ohio EPA staff visit each monitor every other week to service and maintain them. Data is recorded continuously and evaluated each month for submittal to the U.S. EPA Air Quality System (AQS). The AQS data is used to assess air quality and attainment status. The data is posted to an Ohio EPA webpage at: <https://epa.ohio.gov/dapc/ams/amsmain/AMSSpecSam-SFL>.

Will we ever get a public online running meter which was required in the partial consent order?

Yes. The public web page which includes the SO₂ data for SFL is available at <https://epa.ohio.gov/dapc/ams/amsmain/AMSSpecSam-SFL>.

29. Topic: Seneca County General Health District Comments

What is Ohio EPA's plan to address comments provided by SCGHD?

All comments submitted during the public comment period SCGHD are considered as part of this permitting process. A response to each question and concern is addressed within this "Response to Comments" document.



30. Topic: Historical Monitoring Data for SO₂

Why were the SO₂ hourly meters non-functioning for over a year?

In January 2021, Ohio EPA discovered a catastrophic failure of the SO₂ instrument on the facility property north of the landfill. Due to the nature of this failure, the validity of the SO₂ data was considered suspect back to installation of that instrument in August 2020; therefore, the data was considered invalid and properly nullified in accordance with Ohio EPA quality assurance and quality control procedures.

The monitor was replaced with a new instrument in mid-January 2021 and has since successfully collected quality assured and quality controlled data. In addition, a second monitor operated by Ohio EPA to sample ambient air quality for SO₂ was established west of the landfill off the facility's property and data from that location was collected starting Dec. 23, 2020. All available SO₂ data is available at <https://epa.ohio.gov/dapc/ams/amsmain/AMSSpecSam-SFL>.

31. Topic: Ohio EPA Actions for Future Non-Compliance

What steps will be taken if the facility does not comply with the permit.

The facility is required to demonstrate compliance with the permit terms and conditions. Failure to comply with the permit will result in violations being cited. Ohio EPA has the authority to escalate enforcement against a facility for non-compliance and ensure the facility returns to compliance. Results of escalated enforcement can include warning letters, consensual agreements, unilateral orders, referral to the Ohio Attorney General's Office, court orders, etc. While rare, an outcome of enforcement could include the temporary or permanent shutdown of the facility.

32. Topic: Potential to Emit

What are the permit limits for the other pollutants?

The emissions from this project are as follows:

- i. From the enclosed flare;
 - (1) 0.20 pound of CO per mmBtu of methane gas combusted
 - (2) 0.06 pound of NO_x per mmBtu of methane gas combusted
 - (3) 17 pounds of PM₁₀ per mmBtu of methane gas combusted
 - (4) 98 percent control efficiency for VOC
- ii. From the open flare (when operated);
 - (1) 0.37 pound of CO per mmBtu of methane gas combusted
 - (2) 0.068 pound of NO_x per mmBtu of methane gas combusted
 - (3) 17 pounds of PM₁₀ per mmBtu of methane gas combusted
 - (4) 98 percent control efficiency for VOC
- iii. 4.60 tons fugitive VOC per year.



33. Topic: Ohio EPA's Enforcement Authority

If the goals of this permit are not reached will the Ohio EPA close/cap the landfill?

The facility is required to demonstrate compliance with the permit terms and conditions. Failure to comply with the permit will result in violations being cited. Ohio EPA has the authority to escalate enforcement against a facility for non-compliance and ensure the facility returns to compliance. Results of escalated enforcement can include warning letters, consensual agreements, unilateral orders, referral to the Ohio Attorney General's Office, court orders, etc. An outcome of enforcement could include the temporary or permanent shutdown of the facility. Those concerns associated with odor management and emissions management will be handled through the post-closure care period required by law.

34. Topic: Timeline for Project Goals

What is the timeline for the project goals?

Sunny Farms Landfill is required to install and operate the new H₂S removal system within 550 days of final issuance of the permit.

35. Topic: Emissions Testing

Provide information on the stack testing company and the chain of custody for the stack testing samples.

The third-party testing company that will perform direct sampling on the emissions from the enclosed flares will be chosen by SFL. The stack testing company, methods and procedures must be submitted and approved by the Ohio EPA prior to testing to ensure that the stack testing is conducted in accordance with the U.S. EPA-approved methodologies.

The third-party testing company must follow all chain of custody protocols and copies of the "record of custody" must be submitted with the final stack test report. Ohio EPA will witness the stack testing to ensure that the proper procedures are followed. Ohio EPA staff review the results of all stack testing. In addition to the stack testing, continuous emissions monitoring is required to assess SO₂ emission from both the enclosed flare and open flare when they are in use. The results of the continuous emissions monitoring data will also be reviewed by Ohio EPA.

36. Topic: Railcar

It is concerning that railcars carrying waste are sitting idle.

Solid waste and construction and demolition debris transportation is not something Ohio EPA has the authority to regulate. Concerns with the railcar distribution system should be directed to the Surface Transportation Board by calling (866) 254-1972 or directed to the owner of the rail line or SFL directly. H₂S is not generated from the waste as it is transported. The H₂S is not generated until the waste decomposes deep within the landfill in an anaerobic (oxygen-free) environment. Sampling for H₂S performed by Ohio EPA to date downwind of staged railcars has not resulted in detections of H₂S.



37. Topic: Landfill Fires

What protections are in place in the event of a fire, including if there any alarms or emergency systems?

MSFL must have measures in place to limit fire risk at a landfill. The waste is covered daily. Hot loads are prohibited from being deposited at the working face. In the event a fire should occur on the surface of the landfill, the landfill is expected to contact emergency services to assist with any fire response.

38. Topic: Operating with Proper Permits

Why was the facility allowed to operate without a PSD permit?

Ohio EPA recognized that the facility was out of compliance with the existing air permit and took the necessary actions by citing non-compliance and pursuing enforcement. Through the Attorney General's Office, Ohio EPA entered a partial consent order that required Sunny Farms Landfill to take action in order to come back into compliance. This permitting action is one step in that process. Ohio EPA chose not to pursue a shutdown of the facility in this case because we felt the intermediate steps taken would protect public health, we expect the facility to be able to come back into compliance.

39. Topic: Sulfur Waste

What will happen to the sulfur byproduct, and will the disposal create more odors?

SFL intends to find a beneficial re-use for the elemental sulfur generated from the Lo-Cat system. The Lo-Cat system manufacturer suggested using the product as an agricultural soil amendment, but the facility has not committed to that. Should the facility not be able to find a beneficial reuse project for the sulfur, the facility is required to appropriately dispose of the material. SFL is required to control odors that occur from the facility.

40. Topic: Frustration/Disappointment with Ohio EPA's Actions

Commentors expressed concern over the Ohio EPA's response to citizen concerns.

Ohio EPA strives to be responsive to citizen concerns regarding Sunny Farms Landfill. Multiple enforcement cases against the facility have been taken, in part, due to these concerns. The enforcement actions have resulted in more stringent requirements being imposed on the landfill and in the levying of fines against the landfill owners. The primary concern from the local community (the rotten egg odor or H₂S) was prioritized and required to be addressed first and foremost.

Calls to the odor hot line indicate that odor concerns from the community was largely addressed by April of 2019. This permitting action is the result of the July 2019 partial consent order and is requiring the facility to install control equipment to reduce emissions of SO₂ and continue implementing measures aimed to limit the fugitive release of H₂S.



41. Topic: Statement from public hearing (2 comments)

a. Why didn't Ohio EPA require Sunny Farms to install the Lo-Cat control system to control sulfur emissions from the landfill earlier?

At the time of the 2012 and 2014 permits, Ohio EPA was not aware that the wallboard contained within the waste was producing or would be producing much larger amounts of H₂S gas than anticipated. The permits required the use of LGC and GCCS including a flare which is the type of system typically used at MSW landfills to control emissions and odors. GCCS systems are usually successful in significantly reducing emissions and odors from landfills.

In 2019, it became apparent that the landfill was producing much more H₂S than expected. Concentrations of H₂S in the raw gas tripled in 2019. Ohio EPA filed an enforcement action against SFL in March of 2019.

The July 2019 settlement of the enforcement action required SFL to take multiple steps to resolve the problems, including requiring Sunny Farms to apply for and obtain a revised air permit (this permit) and required the facility to install an H₂S control system.

Ohio EPA understood that there was a history of odor problems associated with the landfill during and before the time we issued the 2012 and 2014 permits. Though the site had an odor history, the air permits were expected to appropriately limit the site's emissions. At the time the permits were issued, the concentration of H₂S that needed to be managed and the resultant potential to emit for SO₂ were not accurately forecasted.

42. Topic: Previous Permitting Actions

Why was the previous landfill expansion permit approved by Ohio EPA and did it include best management practices to control release of H₂S odors?

See the response to Topic 41.

In addition, the landfill expansion permit issued on Feb. 8, 2013, was issued at a time when the facility was in "substantial compliance" as defined in ORC 3734.07(A) as the facility was on a legally enforceable schedule to return to compliance. That existing solid waste landfill permit-to-install includes several U.S. EPA best management practices to the prior landfill design to address odors; however, the facility violated several of those provisions. Therefore, additional enforcement cases were escalated against the facility in 2019.

43. Topic: Landfill Expansion Concerns

The landfill should not be allowed to expand in the future.

This permitting action does not address any possible future expansion at this facility. If the company that owns the facility would like to expand the landfill, it must first obtain permits. If permit applications for an expansion are submitted, Ohio EPA will notify the public and conduct a detailed review of the applications to ensure any expansion will comply with all federal and state regulations.



44. Topic: H₂S Generation from the Waste

Why is the facility continued to be allowed to take wastes that generate H₂S?

Ohio does not have the authority to prohibit the interstate transportation of waste. Sunny Farms Landfill accepts waste materials that are authorized for disposal at a solid waste landfill. There are no regulations that provide authority to Ohio EPA to limit the type of solid waste or construction and demolition debris received by a licensed permitted landfill beyond the prohibited materials listed in OAC Rule 3745-27-19(E)(8). Gypsum wallboard is not a prohibited waste listed in OAC Rule 3745-27-19(E)(8).

45. Topic: Need for Permit

Why is this permit needed and why was the public hearing held?

This permit requires Sunny Farms Landfill to install control equipment that will reduce the SO₂ emissions. The installation of the control system is required by Ohio EPA through the July 2019 partial consent order. The public hearing was held to explain the purpose of the permit, answer questions and listen to any public comments provided on the draft air permit.

46. Topic: Fines for Non-Compliance

Has Ohio EPA been levying fines for Sunny Farms Landfill's continued non-compliance?

Ohio EPA has taken enforcement against the facility. Financial penalties were imposed as part of the 2019 partial consent order including a requirement for the facility to financially give back to the community. The case was settled with recognition that the facility was not able to meet the existing permit's limit for SO₂ emissions until such time as this permit was issued and the required control technology was in place.

47. Topic: Timeline for Completing Installation

Why does the facility have up to 550 days after permit issuance to install the new control equipment?

The timeframe for implementing the new system was established in the July 2019 partial consent order. Numerous factors were considered by Ohio EPA and the Ohio Attorney General's Office before establishing that compliance deadline. The new permanent control system is being custom designed to address the unique odor challenges from this facility. It takes a significant amount of time for the manufacturer to design and build the control system. The power required to operate the system is significant. Time will be needed to ensure the infrastructure is in place in the region to supply the required electrical power.

48. Topic: Lack of Public Hearing in July 2019

Why didn't SCGHD host a public hearing in July 2019?

Any concerns regarding SCGHD's actions associated with its role as the landfill licensing authority should be directed to the health district.



49. Topic: Request for Monitoring, Record Keeping and Testing Requirements

Ohio EPA should require testing and proven monitoring requirements to determine annual H₂S and SO₂ emissions.

These requests have been addressed through this permitting action. Sunny Farms Landfill is required to demonstrate compliance with the H₂S and SO₂ emission limitations from the enclosed flare by testing in accordance with the approved U.S. EPA stack testing methods.

Sunny Farms Landfill also is required to install two H₂S continuous emissions monitors within the piping of the treatment system to measure, calculate and report the annual emissions of H₂S and SO₂ from the flares as detailed in the permit terms and conditions. Fugitive emissions of H₂S from the landfill itself will be controlled through the enforcement of the BACT standards incorporated into this permit.

50. Topic: Radiation/Radioactive Waste

Why doesn't the facility have a radiation detection system and what oversight is there of radioactive waste being disposed of in the landfill?

SFL is not permitted to accept regulated radioactive wastes. The facility is required to follow their PCB and Hazardous Waste Detection Program, a plan required as part of its solid waste landfill permit, to ensure that prohibited materials are excluded from disposal.

Current regulations for solid waste landfills in Ohio do not require radioactive sensors to be installed. Sunny Farms landfill does not take wastes generated from the fracking industry, known to include some TENORM waste with any regularity. Numerous redundant systems exist at solid waste landfills to protect the environment and human health: siting criteria, liner systems, ground water monitoring, cap systems, etc.

51. Topic: Concerns Regarding Fostoria's Drinking Water Quality

Does the potential exist for Fostoria's water to be impacted by the landfill's leachate?

Leachate (water captured and extracted from the base of the landfill) is hauled from the landfill and treated at wastewater treatment plants. That process does not affect the City of Fostoria's drinking water treatment and distribution system.

52. Topic: Regulatory Oversight

What regulatory agency(ies) oversee(s) Sunny Farms Landfill?

Sunny Farms Landfill is regulated by multiple local, state, and federal regulatory agencies. With regards to this permitting action, the Ohio EPA is the regulatory agency that oversees compliance with the state and federal regulations outlined in this permit. The facility is required to conduct monitoring, maintain records and, at a minimum, submit quarterly reports. Additionally, Ohio EPA will review records, conduct onsite inspections, observe any stack tests the facility is required to perform, and maintain ambient air quality monitoring for SO₂.



53. Topic: Permitting Approval Timeframe

Commentors expressed concern over the length of time the approval has taken for the installation of the new H₂S control system.

Sunny Farms Landfill submitted the permit application within the timeframe required by the July 2019 partial consent order. Due to the unique emission control challenges the facility faces, a detailed review of the permit application and proposed design was conducted. Though this technology is successfully used at other landfills, it has not been previously permitted for use at an Ohio landfill.

The review involved looking at many details including the different control technologies available. Ohio EPA and the facility had multiple discussions on the permit application and initial design. Ohio EPA provided feedback and suggested revisions to the original design. This was done to ensure that the proposed control system will indeed be BACT.

54. Topic: Asbestos

There is a concern that SFL accepts asbestos.

Sunny Farms Landfill is permitted to accept asbestos waste but must handle and dispose of the asbestos in accordance with the stringent work practice requirements outlined in both NESHAP Subpart M and Ohio EPA Chapter 20 regulations. Ohio EPA audits the landfill to ensure that the asbestos is being handled properly.

55. Topic: Flare Information

What is the height and diameter of the proposed enclosed flare?

The enclosed flare will be 60 feet tall and 8.6 feet in diameter.

56. Topic: Control System Flow

What is the flow of the H₂S removal system?

With both treatment system trains on-line, and all treated gas being sent to the enclosed flare the flow capacity will be 6,071 standard cubic feet per minute (scfm) of landfill gas.

57. Topic: BTU Value of the Landfill Gas

What is the current BTU of the landfill gas currently drawn from the facility?

The lab analysis from the most recent sample ranged between 330-360 Btu/cf, gross heating value.

58. Topic: Supplemental Fuel

Will supplemental fuel be required to operate the enclosed flare?

No supplemental fuel will be required to maintain the temperature needed to operate the enclosed flare.



59. Topic: Long-Term Accountability/Oversight

Will all protective systems at the landfill be maintained after the landfill ceases accepting waste?

Solid waste landfills are required to comply with requirements after they cease acceptance of waste. Solid waste landfills have a minimum 30-year post-closure care period. The post-closure care period does not end until approved by the Director of Ohio EPA.

During the post-closure care period, the landfill's protective components need to be operated and maintained; this includes, but is not limited to, the leachate extraction system, the gas collection and control system, and the ground water monitoring system. The costs to close the landfill and to maintain the facility during the 30-year post closure care period need to be financially assured through an accounting process that is regulated by Ohio EPA. Additionally, 40 CFR 62.16714(f) requires the facility to continue to operate the gas collection and control system a minimum of 15 years after the landfill is considered a "closed landfill" and the calculated NMOC emission rate is less than 34 Mg/year for three successive test dates. The liability to comply with all applicable operating requirements, closure requirements, and post-closure care requirements rests with the landfill owner.

60. Topic: Off-Site Air Monitoring/Emissions Estimates

Commentors asked about current off-site air monitoring practices.

Ohio EPA operates two continuous SO₂ monitors, one onsite and one offsite. The offsite monitor measures the ambient air quality to ensure that the NAAQS for SO₂ are being met. Sunny Farms Landfill is required to monitor for H₂S 12 times each day at locations that are pre-determined by wind direction through a standard operating procedure approved by Ohio EPA. That data is documented in a monthly report submitted to Ohio EPA and SCGHD. The facility is required to notify Ohio EPA and SCGHD within 24 hours if any of these daily readings is above 15 ppb H₂S. Sunny Farms Landfill also is required to maintain a total of five stationary Jerome meters to continuously monitor for H₂S. Three of these meters were required by Ohio EPA. Two additional meters were required by SCGHD. That data is available in real-time for SCGHD and Ohio EPA to access and review.

61. Topic: Surface Water

How does the facility monitor surface water that leaves the property?

All surface water from the landfill is routed through a network of engineered ditches to permitted sedimentation basins. The outfall from each of the basins is permitted through a National Pollution Discharge Elimination System (NPDES) permit. The ponds are designed to retain most storms but do discharge storm water during significant storm events. The water flowing from the ponds is required to meet the standards established by the NPDES permit and is required to be sampled to document compliance.



62. Topic: Ground Water/Ground Water Quality (2 comments)

Ohio EPA should monitor wells around the facility and wells surrounding the landfill, but off facility property should also be sampled.

Sunny Farms Landfill meets all applicable ground water protection setbacks for solid waste landfills and all modern landfill cells constructed after 1994 are constructed with a BAT liner and leachate collection system. SFL is required to comply with the ground water monitoring requirements in Ohio Administrative Code 3745-27-10.

In accordance with these rules, Ohio EPA has approved a ground water detection monitoring plan. That plan requires sampling of 66 wells and six (6) piezometers that surround the facility screened at various depths to be sampled twice each year for 76 different potential contaminants. Each sampling event is documented in a report reviewed by Ohio EPA geologists to ensure that any potential indication of impact to the ground water is assessed.

Private water wells draw water in the area from the bedrock aquifer. SFL has not impacted the bedrock aquifer. Individuals who have concerns regarding the quality of water from a private water well, may contact the SCGHD or Ohio Department of Health regarding their Private Water Systems Program. Information about the program is available at <https://odh.ohio.gov/wps/portal/gov/odh/know-our-programs/private-water-systems-program/private-water-systems-program>. Seneca County residents that live in proximity to the landfill may qualify for a program administered by the Seneca County General Health District that provides for water quality testing.

63. Topic: Failed Septic Systems

What is the environmental impact from landfill-owned septic systems that are now failing?

Thank you for expressing your concern; staff is investigating this as a complaint.

64. Topic: Employee Safety

Commentor expressed concern with employee safety at the landfill.

Employee safety concerns are outside the scope of the Ohio EPA regulatory authority. All concerns regarding employee safety should be submitted to the Occupation Safety and Health Administration (OSHA). OSHA Toledo Office can be contacted at (419) 259-7542.

65. Topic: Board of Health

Does the SCGHD also provide oversight related to the landfill gas?

All questions for the Seneca County General Health District should be directed to the Seneca County General Health District; the phone number is (419) 447-3691.



66. Topic: Property Value

Sunny Farms Landfill has a negative impact on nearby property values and should close.

This permit imposes restrictions and limitations against the landfill and requires enhanced treatment for SO₂ emissions. This permit does not include a landfill expansion or an increase in the landfill's permitted life. Regardless, Ohio EPA may not consider potential impact to property value when evaluating a permit-to-install.

67. Topic: Odor Blanket

Please provide information regarding the odor control blanket.

The odor control blanket in place at Sunny Farms along the north slope of the southern unit includes a recompacted soil barrier layer, a plastic liner, and an additional geosynthetic material called a wind defender that holds the plastic in place. The odor control blanket construction was documented in a report submitted to Ohio EPA. That report is available through Ohio EPA's electronic document system at the following link: <https://edocpub.epa.ohio.gov/publicportal/ViewDocument.aspx?docid=1381787>.

68. Topic: Facility Closure

What happens when the facility closes and "hands over the responsibility to the county?"

Solid waste landfills are required to comply with requirements after they cease acceptance of waste. Solid waste landfills have a minimum 30-year post-closure care period. During the post-closure care period the landfill's protective components need to be operated and maintained which includes, but is not limited to, the leachate extraction system, the gas collection and control system, and the ground water monitoring system. The costs to close the landfill and to maintain the facility during the 30-year post closure care period need to be financially assured through an accounting process that is regulated by Ohio EPA. The liability to comply with all applicable operating requirements, closure requirements, and post-closure care requirements rests with the landfill owner.

69. Topic: Soil Borrow Area

It looks like the facility is digging another cell and has hit ground water.

Significant soil is required to operate a landfill.

The facility's current soil borrow area is south-southwest of the landfill, north of U.S. 224. In addition to the soil borrow area, an engineered sedimentation basin permitted by Ohio EPA is operated in that portion of the landfill property to control stormwater run-off. Neither the borrow area nor the sedimentation basin are excavated below the top elevation of the ground water uppermost aquifer system.



FINAL

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

Facility ID:	0374010199
Permit Number:	P0128797
Permit Type:	Administrative Modification
Issued:	12/01/2021
Effective:	12/01/2021



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

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Final Permit-to-Install
Sunny Farms Landfill
Permit Number: P0128797
Facility ID: 0374010199
Effective Date: 12/01/2021

Authorization

Facility ID: 0374010199
Facility Description: Refuse Systems
Application Number(s): M0006354, M0006635
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: Administrative Modification
Permit Fee: \$1,250.00
Issue Date: 12/01/2021
Effective Date: 12/01/2021

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

Entered into the Journal of the Director on:

Laurie A. Stevenson
Director

Date: 12/01/2021



Final Permit-to-Install
Sunny Farms Landfill
Permit Number: P0128797
Facility ID: 0374010199
Effective Date: 12/01/2021

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/m ³ = 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	MSDS = Material Safety Data Sheet	PTO = Permit-to-Operate
CO = carbon monoxide	MSW = Municipal Solid Waste	PWR = process weight rate
CO ₂ = carbon dioxide		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/m ³ = 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 ₂ S = hydrogen sulfide	OAC = Ohio Administrative Code	TPY = ton(s) per year
H ₂ SO 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/m ³ = micrograms per cubic meter
hp = horsepower	PE = particulate emissions	
HVLP = high volume, low pressure	PEMS = Predictive Emissions Monitoring System	



Final Permit-to-Install
Sunny Farms Landfill
Permit Number: P0128797
Facility ID: 0374010199
Effective Date: 12/01/2021

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 (i.e., postmarked) 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 DO/LAA 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 shut down 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.



Final Permit-to-Install
Sunny Farms Landfill
Permit Number: P0128797
Facility ID: 0374010199
Effective Date: 12/01/2021

B. Facility-Wide Terms and Conditions



Final Permit-to-Install
Sunny Farms Landfill
Permit Number: P0128797
Facility ID: 0374010199
Effective Date: 12/01/2021

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 requirements, including the 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.



Final Permit-to-Install
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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)m., b)(2)n., b)(2)o., b)(2)p., b)(2)q., b)(2)x., d)(19), d)(20), d)(21), d)(23), d)(24), d)(25), d)(26), d)(27), e)(5), e)(6), e)(7), e)(8), e)(13), e)(14), e)(15), 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	<p><u>Sulfur Dioxide (SO₂) Emissions:</u> 337.6 tons per rolling 12-month period [See b)(2)a.]</p> <p><u>Hydrogen Sulfide (H₂S) emissions:</u> 146.95 tons per rolling 12-month period [See b)(2)a.]</p> <p>See b)(2)b.</p>
b.	ORC 3704.03(T) and OAC rule 3745-31-05(A)(3)	<p>Best Available Technology (BAT) for:</p> <p><u>Flare emissions:</u> See b)(2)c. for carbon monoxide (CO), nitrogen dioxide (NO_x), particulate matter 10 microns or less is size (PM₁₀), and volatile organic compounds (VOC)</p> <p>See b)(2)e. for SO₂</p> <p><u>Fugitive Landfill Gas Emissions:</u> 4.60 tons fugitive volatile organic compounds (VOC) per rolling 12-month period [See b)(2)d.]</p>

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p><u>Fugitive Particulate Emissions:</u> Visible fugitive particulate emissions (PE) from the landfill and construction operations shall not exceed 20% opacity, as a three-minute average. [See b)(2)g. through b)(2)i.]</p> <p>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.]</p>
c.	<p>40 CFR Part 62, Subpart OOO (40 CFR 62.16710 – 16730)</p> <p>(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 (m³) and has estimated uncontrolled emissions equal to or greater than 34 Mg/yr NMOC)</p>	See b)(2)t., c)(4), d)(28) and e)(16)
d.	40 CFR Part 62, Subpart A (40 CFR 62.01 – 13)	General Provisions [See b)(2)u.]
e.	<p>40 CFR Part 63, Subpart AAAA (40 CFR 63.1930 – 1990)</p> <p>(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 m³ and has estimated uncontrolled emissions equal to or greater than 50 Mg/yr NMOC)</p>	See b)(2)v., c)(5), d)(29) and e)(17)
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.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
g.	40 CFR 61.140 et seq. [NESHAP Subpart M]	See b)(2)j. through b)(2)l.
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. and b)(2)x.
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 H₂S and SO₂ 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 H₂S emissions, an active landfill gas (LFG) collection system shall be operated and maintained in accordance with the approved Landfill Gas Collection and Control System - Maintenance, Monitoring, and Recordkeeping Plan (MMRP). (last revised 06/15/2021*) and subsequently approved revisions [See d)(4)].

The following sections of the MMRP shall be considered as part of the federally enforceable BACT requirements:

- (a) Section 1.2: Landfill GCCS description
- (b) Section 1.3: Regulatory Status
- (c) Section 2.2: Wellheads
- (d) Section 2.3: Lateral Piping
- (e) Section 3.1: Wellfield Operating Standards
- (f) Section 4.2: Surface Emission Monitoring Program
- (g) Those applicable monitoring, recordkeeping and reporting requirements in Section 6: Recordkeeping, Data Evaluation and Reporting used to demonstrate compliance with the sections outlined in b)(2)a.i.(a) through (f) above.

*Note: The portions of the MMRP that address the maintenance, monitoring and recordkeeping of the H₂S treatment system and enclosed flare are effective upon startup of the H₂S treatment system.

ii. In order to control SO₂ and H₂S emissions from collected gases, all collected landfill gases are vented to an H₂S control system designed and operated to reduce H₂S concentrations to the following, except during periods of startup, shutdown, and maintenance:

- (a) For collected LFG with an H₂S concentration greater than 10,000 ppmv, the control system shall achieve a minimum of 98% reduction in H₂S concentration (by volume) in the untreated LFG;

AND
 - (b) For collected LFG with an H₂S concentration equal to, or less than 10,000 ppmv, the control system shall achieve a maximum outlet concentration of H₂S (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 H₂S (contained in the treated LFG) to SO₂.
 - (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 H₂S control system maintenance periods when one H₂S removal train is offline for maintenance, LFG shall be vented to the remaining operational H₂S 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 H₂S removal train shall not exceed 14 days per calendar year. At least one H₂S 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. SO₂ 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 H₂S control system trains are operational); and
 - (b) 20.5 lbs/hr, as a 24-hour daily average when only one of the two H₂S control system trains is operational.

It should be noted that the H₂S control system will be offline during all periods of time when the enclosed flare is down for maintenance.

- vi. SO₂ 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 H₂S 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 H₂S control system and enclosed flare.

It should be noted that the H₂S control system will be offline during all periods of time when the enclosed flare is down for maintenance.

- vii. The combined H₂S 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 PM₁₀ 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 PM₁₀ 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 SO₂ 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 H₂S control system involves collected LFG being distributed by use of a piping manifold system to two separate H₂S treatment units operated in a parallel configuration. The treated LFG from each H₂S treatment unit is combined in common piping system prior to the inlet of the enclosed flare. The H₂S concentration from the H₂S control system shall be measured in the manifold piping system in the common piping manifold system after the H₂S control system and prior to the enclosed flare.

The piping manifold system prior to the two H₂S treatment units is also the inlet to the open flare. During periods of startup, shutdown and maintenance of the H₂S control system and/or enclosed flare, the H₂S concentration of the LFG vent to the open flare shall be measured in the common piping manifold system.

- x. In order to control the fugitive H₂S emissions, an active landfill gas (LFG) collection system shall be operated and maintained in accordance with the approved Landfill Gas Collection and Control System - Maintenance, Monitoring, and Recordkeeping Plan (MMRP). (last revised 06/15/2021*) and subsequently approved revisions [See d)(4)].

The following sections of the MMRP shall be considered as part of the state-only enforceable requirements:

- i. Section 4.1: Facility Operations
- ii. Section 4.3: Offsite Self-Monitoring Odor System
- iii. Section 4.4: Off-site Odor Response Actions
- iv. Section 4.5: Meteorological Station
- v. Section 4.6: Communications Program
- vi. Section 5.1: Odor Complaint Receipt
- vii. Section 5.2: Complaint Investigation
- viii. Section 5.3: Odor Complaint Recordkeeping and Reporting
- ix. Those applicable monitoring, recordkeeping and reporting requirements in Section 6: Recordkeeping, Data Evaluation and Reporting used to demonstrate compliance with the sections outlined in b)(2)x.i. through viii. above.

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 them.
- (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 H₂S monitoring system with gas chromatography 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 H₂S monitoring system(s) with gas chromatography, the permittee shall develop and maintain a written quality assurance/quality control plan designed to ensure continuous valid and representative readings of H₂S 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 prior to H₂S treatment system and open flare, 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 H₂S CEM at a minimum frequency of once every three years; and
 - b. Conduct cylinder gas audits on the H₂S 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 H₂S CEMS must be kept on site and available for inspection during regular office hours.

H₂S 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 H₂S emissions from this emissions unit (in the common piping manifold prior to the H₂S treatment system and open flare and at the inlet of the enclosed flare) in units of the applicable standard(s). The H₂S 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 H₂S monitoring system with gas chromatography including, but not limited to:

- a. Emissions of H₂S in parts per million for each cycle time of the analyzer, with no resolution less than one data point per 15-minute period required;
- b. Emissions of H₂S 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 H₂S monitoring system with gas chromatography , and control equipment (open and/or H₂S 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 H₂S control system and enclosed flare) and/or the continuous H₂S monitoring system with gas chromatography ;
- h. The date, time, and hours of operation of the LFG collection system during any malfunction of the control equipment (open and/or H₂S control system and enclosed flare) and/or the H₂S 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 H₂S monitoring system with gas chromatography , 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 H₂S monitoring system with gas chromatography 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 H₂S 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 H₂S treatment system.
- (6) The permittee shall collect and analyze the regenerated absorbent solution at least once per day of operation for each individual H₂S 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 H₂S removal system, LFG flow to each treatment system train and in common header pipe supplying LFG to the enclosed flare from the two H₂S 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 Celsius) during the most recent compliant stack test based on a 3-hour block 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. Per the manufacturer specifications, the appropriate minimum temperature shall be 871.1 degrees Celsius (the equivalent to 1600 degrees Fahrenheit), as a 3-hour

block average. 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 28 degrees Celsius below the minimum operating temperature from the limit established in accordance with this permit, 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 H₂S treatment unit was in operation and identification of H₂S treatment unit that was not operational;
 - c. All times during which both H₂S 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) SO₂ emissions lbs/hr from the open flare and enclosed flare shall be determined using the H₂S CEMS, default concentrations from AP-42 and flow rate monitors. The hourly SO₂ emission rate shall be calculated using the average hourly flow rate (scf) and hourly H₂S averages (ppmv) in accordance with the following equation:

$$SO_2 \text{ lb/hr} = \sum [(LFG \text{ flow rate, in scfm}) \times S \text{ (ppmv)} \times (1.685 \times 10^{-7}) \times (60 \text{ mins/hr}) \times 0.997 \times (1 - MC_{LFG} \text{ (\%)})]$$

Where:

LFG: Collected Landfill Gas Flow Rate

S: Sulfur concentration of each sulfur containing compound. Except for H₂S, 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 H₂S CEMS
- Methyl mercaptan: 2.48 ppmv.

1.685 x 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 SO₂

MC_{LFG}: Average moisture content of the raw landfill gas. A default percent moisture content of 8.9% (0.089) based on the manufacturer design information shall be used. The actual moisture content of the landfill gas shall be confirmed during the performance testing. The permittee shall revise the moisture content based on the most recent performance testing that demonstrated compliance.

- (13) The permittee shall record all periods of time during which a pilot flame is not present, or the flare was inoperable whenever landfill gas is being vented to a flare.
- (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;
 - i. 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;
 - ii. 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;
 - iii. The name and address of the local, state, or U.S. EPA regional agency responsible for administering the asbestos NESHAP program;

- iv. A description of the asbestos-containing waste materials included in the waste shipment;
 - v. The number and type of containers included in the waste shipment;
 - vi. The approximate volume of asbestos-containing waste material included in the waste shipment, in cubic yards;
 - vii. Special handling instructions or additional information relative to the waste shipment the waste generator may specify;
 - viii. 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;
 - ix. The name, address, and telephone number of the transporter;
 - x. 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;
 - xi. 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
 - xii. 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):

$$TLV/10 \times 8/X \times 5/Y = 4 TLV/XY = MAGLC$$

- 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/m³): 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 (µg/m³): 0.24
 MAGLC (µg/m³): 33.19

Toxic Contaminant: hydrogen chloride
 TLV (mg/m³): 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 (µg/m³): 1.504 (combined limit from open and enclosed flare stacks)
 MAGLC (µg/m³): 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) The permittee shall demonstrate compliance with the state-only enforceable requirements of the Landfill Gas Collection and Control System – MMRP by complying with the monitoring and recordkeeping requirements outlined in the sections of the MMRP specified in b)(2)x. above.
 - (28) See 40 CFR Part 62, Subpart OOO (CFR 62.16710 – 16730).
 - (29) 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 SO₂ emissions:
 - 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 SO₂ 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 H₂S 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 SO₂ 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 H₂S 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 H₂S CEMS out-of-control and the compliant results following any corrective actions;
- xi. The date, time, and duration of any/each malfunction** of the H₂S CEMS, LFG collection system, and/or control equipment (enclosed flare);
- xii. The date, time, and duration of any downtime** of the continuous H₂S monitoring system with gas chromatography 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 H₂S 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 H₂S and other associated monitors;
 - iii. A description of any change in the equipment that comprises the H₂S 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 H₂S 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 H₂S CEMS, emissions unit, and/or control equipment;
 - ix. The date, time, and duration of any downtime** of the H₂S 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.
 - xi. Each report shall address the operations conducted and data obtained during the previous calendar quarter.

* where the H₂S 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:
 - b. 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).
 - c. 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.
 - d. 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.
- e. 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 H₂S treatment unit was in operation and identification of H₂S treatment unit that was not operational;
 - iii. All times during which both H₂S treatment units were not operational; and
 - iv. All times during which the enclosed flare was not operational.
- f. 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:
 - g. Scheduled starting and completion dates.
 - h. Reason for disturbing the waste.
 - i. 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.

j. 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 Contaminant Statute, ORC 3704.03(F), through the predicted 1 hour maximum concentration. The report should include:
- k. The original model input;
 - l. The updated model input;
 - m. The reason for the change(s) to the input parameter(s); and
 - n. A summary of the results of the updated modeling, including the input changes; and
 - o. 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) The permittee shall submit quarterly deviation (excursion) reports that identify all days during which the facility failed to comply with the monitoring and recordkeeping requirements outlined in the sections Landfill Gas Collection and Control System – MMRP, as specified in b)(2)x. above.
- (16) See 40 CFR Part 62, Subpart OOO (CFR 62.16710 – 16730).
- (17) See 40 CFR Part 63, Subpart AAAA (40 CFR 63.1930 – 1990).
- (18) Unless other arrangement 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 H₂S control system specified in b)(2)a.ii., the permittee shall conduct certification tests of the H₂S CEMS located at the inlet to the open flare (prior to the H₂S treatment system and open flare), in units of the applicable standard(s) to demonstrate compliance with 40 CFR Part 60, Appendix B, Performance Specifications 2 and 7; and ORC section 3704.03(l).

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 H₂S 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 7; and ORC section 3704.03(I).

The permittee is required to demonstrate ongoing compliance with the SO₂ emission limitations contained in this permit, demonstrated through the data collected as required in the Monitoring and Record keeping Section of this permit [See d)(12)].

- (2) Within 180 days of commencing operation of the H₂S control system specified in b)(2)a.ii., the permittee shall conduct certification tests of the H₂S CEMS located at the inlet of the enclosed flare 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 H₂S 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 H₂S 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.

The permittee is required to demonstrate ongoing compliance with the SO₂ emission limitations contained in this permit, demonstrated through the data collected as required in the Monitoring and Record keeping Section of this permit [See d)(12)].

- (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 H₂S 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 H₂S concentration (by volume) in the untreated LFG. If the collected untreated LFG has an H₂S concentration equal to, or less than 10,000 ppmv, the permittee shall also demonstrate compliance with the maximum outlet concentration of H₂S (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 H₂S 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 H₂S 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) SO₂ 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 SO₂ shall be determined using Methods 1 through 4, and Method 6 or 6C, as appropriate, 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 SO₂ emissions testing required in f)(3)b. above, the permittee shall determine the H₂S to SO₂ conversion rate of the enclosed flare using emissions test results and H₂S 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 H₂S (contained in the treated LFG) to SO₂.

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: SO₂ 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 SO₂ 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: SO₂ emissions from the enclosed flare shall not exceed 20.5 lbs/hr, as a 24-hour daily average, when only one of the two H₂S control system trains is operational

Applicable Compliance Method: Compliance with the hourly SO₂ 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: SO₂ 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 H₂S control system trains is operational

Applicable Compliance Method: Compliance with the hourly SO₂ 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: SO₂ 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 H₂S control system and enclosed flare

Applicable Compliance Method: Compliance with the hourly SO₂ 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 H₂S 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 H₂S 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 H₂S 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 H₂S control system and enclosed flare
- iv. 1.384 lbs/hr from the 125-foot open flare (stack) during periods of H₂S 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 H₂S control system trains is operational.
- vi. 192.8 lbs/hr from the landfill surface (fugitive) during periods of startup, shutdown and maintenance of the H₂S control system and enclosed flare.

The potential to emit emission rates for H₂S were calculated by applying reductions for LFG capture and control requirements to an uncontrolled H₂S emission rate of 652 lb/hr. The uncontrolled H₂S emission rate was determined based on the following:

- i. H₂S generation rate using the Environmental Research and Education Foundation (EREF) H₂S generation model below:

$$Q_{H_2S} = \sum_{i=1}^n k S_o M_i (e^{-kt^i})$$

Where:

Q_{H_2S} = H₂S generation rate from the landfill, cubic feet per year
 k = H₂S generation rate constant, yr⁻¹
 S_o = H₂S generation potential, cubic feet of H₂S per ton of waste
 M_i = Mass of sulfur deposited in the nth 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 H₂S concentration and LFG data were applied to generate an H₂S 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: SO₂ emissions shall not exceed 337.6 tons per rolling 12-month period. The annual emission limitation applies to all SO₂ emissions emitted from the enclosed flare and open flare including periods of startup, shutdown, and maintenance of the H₂S 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 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 PM₁₀/10⁶ 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 or 7E, as appropriate, 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 PM₁₀ /10⁶ 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 PM₁₀ 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.