



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

8/12/2019

Certified Mail

Sharon Frank  
 GSF ENERGY, LLC  
 680 Andersen Drive  
 Foster Plaza 10, Suite 580  
 Pittsburgh, PA 15220

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL  
 Facility ID: 1431093220  
 Permit Number: P0125062  
 Permit Type: Administrative Modification  
 County: Hamilton

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

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](http://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](http://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](http://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 Southwest Ohio Air Quality Agency at (513)946-7777 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  
SWOQA; Indiana; Kentucky



**Division of Material and Waste Management  
Division of Surface Water  
Southwest Ohio Air Quality Agency**

**Response to Comments**

**Projects:**

- Rumpke Sanitary Landfill, Inc. Municipal Solid Waste Landfills Permit-to-Install (PTI) Lateral and Vertical Expansion (PTI 1221259)
- Rumpke Sanitary Landfill, Inc. National Pollutant Discharge Elimination System (NPDES) Permit (11N00180\*ID)
- Rumpke Sanitary Landfill, Inc. Air Pollution Permit (P0124272)
- GSF Energy, LLC Air Pollution Permit (P0125062)

**Re:** Rumpke Sanitary Landfill; Permit – Long Term; Public Response; Municipal Solid Waste Landfills; Hamilton County; MSWL018791

**Contacts for these Projects:**

Michael Harris  
Division of Materials and Waste Management  
(937) 285-6089  
[Michael.Harris@epa.ohio.gov](mailto:Michael.Harris@epa.ohio.gov)

Sarah Harvey  
Division of Surface Water  
(937) 285-6444  
[Sarah.Harvey@epa.ohio.gov](mailto:Sarah.Harvey@epa.ohio.gov)

Brad Miller  
Southwest Ohio Air Quality Agency  
(513) 946-7777  
[Brad.Miller@hamilton-co.org](mailto:Brad.Miller@hamilton-co.org)

**Public Involvement Coordinator:**

Heather Lauer  
Public Interest Center  
(614) 644-2160  
[Heather.Lauer@epa.ohio.gov](mailto:Heather.Lauer@epa.ohio.gov)

Ohio EPA (Agency) held a public hearing on April 2, 2019, concerning several draft permits issued to Rumpke Sanitary Landfill, Inc. (Rumpke) regarding a vertical and lateral expansion of the Rumpke Sanitary Landfill located in Hamilton County. This document summarizes the comments and questions received at the public hearing and during the associated comment period, which ended on April 9, 2019.

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.

**Ohio EPA Responses** *pertain to issues related to the solid waste landfill PTI and the surface water NPDES permit. Issues related to the air pollution permit were addressed by the Southwest Ohio Air Quality Agency (SWOAQA).*

#### Township Trustees

**Comment 1:           Comments addressed to the Colerain Township Trustees.**

Response:           Several questions and comments were directed to the Colerain Township Trustees and request a response and/or action by the trustees. Ohio EPA cannot obligate the township trustees to respond to these comments.

#### Property Values and Zoning

**Comment 2:           There are concerns about property values, zoning, increased truck traffic, mud on the roads and roadway damage caused by the trucks.**

Response:           By law, Ohio EPA has authority to consider specific issues related to protection of the environment and public health. The Agency has reviewed the permit application and determined that it meets the requirements for landfill design and operation and can be issued. Under Ohio law, Ohio EPA does not have the authority to consider property valuation, truck traffic and road wear when reviewing permit applications for landfills. Concerns related to property values, truck traffic and zoning are local land-use issues addressed by municipal or township authorities. Tracking mud onto a roadway is a safety issue that can best be addressed by local or state public safety authorities such as the Colerain Police Department or Ohio State Highway Patrol. Comments related to roadway conditions should be addressed to Ohio Department of Transportation, Hamilton County Engineer or Colerain Township Road Division.

The draft air permit issued to Rumpke Sanitary Landfill, Inc. (P0124272) contains terms and conditions for the plant roadways and parking areas (Emissions Unit F001) that require Rumpke to control dust and mud deposition on public roads near the entrance of the landfill. If Rumpke does not comply with this term, a citizen can file a complaint with the Southwest Ohio Air Quality Agency by calling (513) 946-7777.

#### Consent Decree

**Comment 3:           The final height of the landfill would not comply with the 2000 and 2015 consent decrees between Rumpke and Colerain Township.**

Response:           The 2000 and 2015 consent decrees are agreements between Rumpke and Colerain Township. Ohio EPA is not a party to these agreements. Concerns relating to the consent decrees can be addressed to Colerain Township officials.

**Comment 4:           Ohio EPA cannot approve the proposed expansion or changes to the landfill facility without the prior consent of the township trustees.**

Response:           Ohio EPA's municipal solid waste (MSW) landfill permitting protocol is found in section 3734.05 of the Ohio Revised Code and does not include a requirement to seek approval from local authorities. <http://codes.ohio.gov/orc/3734.05v1>

## Environmental Justice Concerns

**Comment 5:** Commenters raised concerns that permit issuance would reduce environmental quality in the area northwest of Cincinnati, specifically having a potential greater impact on minorities and lower income individuals.

Response: Ohio EPA has reviewed the permit applications and determined that they meet the requirements of Ohio's environmental regulations, inclusive of siting and location requirements. The Agency's evaluation of the air, water and landfill permits concurrently helps to address the potential environmental impacts of the landfill operations and minimize adverse impacts. Today's permit actions have been issued with such terms and conditions necessary to achieve protection of human health and the environment.

## Permitting, Design and Siting Requirements

**Comment 6:** Commenters suggested that the expansion be considered a new permit for a new facility so that current environmental laws are applied.

Response: Under Ohio's landfill regulations, an expansion to an existing landfill is held to the same siting, design and operational requirements as a proposed new landfill.

**Comment 7:** Rumpke should adhere to the most current laws and regulations and use 2019 Best Available Technology (BAT) standards.

Response: Sanitary landfills are required to comply with the laws and regulations established in the Ohio Revised Code and the Ohio Administrative Code which establish the BAT standards in Ohio and are also current with federal standards.

Ohio EPA is required by statute to review the rules every five years. Thus, the rules and standards may be amended periodically in response to evolving technology or statutory changes, and to address other issues. The "current design standards" for sanitary landfills include:

- Composite liner system;
- Separatory liner/leachate collection system;
- Leachate collection and management system;
- Composite cap system; and
- Explosive gas control system.

The proposed expansion meets the current design standard by including a composite liner system, separatory liner, leachate collection and management system, composite cap system and an explosive gas control system in the design.

Additionally, every 10 years from the date of the initial PTI issued, the facility must provide a design analysis demonstrating the unconstructed portion of the facility continues to be consistent with any applicable updated design standards. If the design is no longer consistent with the standards established in an updated rule, the Ohio EPA director may require changes to the facility to comply with the updated design standards.

**Comment 8:** Commenters suggest setbacks from public areas (roads, parks, etc.) and from private properties to be twice the distance as recommended in current regulations with sufficient barriers to block the view from public sight incorporated into the permit, with monitoring.

Response: The Agency has reviewed the permit application and determined that it meets the requirements for landfill design and operation and can be issued. Ohio EPA does not have regulatory authority to require increased setbacks beyond what is specified in the regulations or require visual barriers for the landfill. Recommendations for visual barriers can be directed to local zoning authorities.

**Comment 9: The landfill should be established in a more remote location, not near their neighborhoods and community.**

Response: The Agency has reviewed the permit application and determined that it meets the requirements for landfill design and siting. Ohio EPA does not have regulatory authority to require landfills be built in remote locations.

#### Landfill Elevation

**Comment 10: The final height of the landfill is a concern.**

Response: The height of solid waste landfills in Ohio is limited by a combination of factors including:

- Engineering considerations;
- Local zoning;
- Federal Aviation Administration guidelines (if the facility is near an airport); and
- State landfill design criteria.

Ohio EPA reviewed the application and evaluated the designed height to ensure slope stability and compliance with siting criteria. The proposed expansion meets the minimum setback requirements and the appropriate factors of safety established in rule. Construction and waste placement activities will be monitored at the landfill throughout the life of the facility to ensure that facility does not exceed the permitted height.

#### Federal Aviation Administration (FAA)

**Comment 11: Commenters expressed concerns about the landfill elevation and aircraft safety.**

Response: State rules and regulations restrict waste placement from being within 10,000 feet of any airport runway end used by turbojet aircraft or within 5,000 feet of any airport runway end used by only piston-type aircraft, unless the applicant can demonstrate the landfill will not pose a bird hazard to aircraft. Additionally, state rules and regulations require the applicant to notify the airport administrator and the FAA if solid waste placement occurs within 5 miles of any airport runway.

Rumpke provided documentation identifying Butler County Regional airport as the nearest airport, which is more than 6.5 miles (34,320 feet) northeast of Rumpke. Any additional safety concerns related to aircraft can be directed to the FAA ([www.faa.gov/contact/](http://www.faa.gov/contact/)).

#### Requests for Additional Studies

**Comment 12: Commenters requested a wind current study and archeological and biological surveys be performed.**

Response: The Agency has reviewed the permit application and determined that it meets the requirements for landfill design and siting. Ohio EPA does not have the regulatory authority to require a wind current study.

The landfill permit application must include a 401 water quality certification (WQC). As part of the 401 WQC application, Rumpke is required to get comments from Ohio Department of Natural Resources (ODNR) and U.S. Fish and Wildlife Service regarding threatened and endangered species, including the presence or absence of critical habitat. Rumpke submitted habitat and/or biological survey data for all impacted streams and wetlands. Ohio EPA reviewed this information and issued a 401 WQC with conditions to be protective of water quality, including Aquatic Life Uses, in both Banklick Creek and the Great Miami River. A response to comments received during the 401 WQC public comment period and public hearing held on November 13, 2017, was included with the 401 WQC authorization on August 2, 2018. Concerns about threatened and endangered species can be directed to ODNR's Division of Wildlife 1-800-WILDLIFE (946-3543) or U.S. Fish and Wildlife Service (614) 416-8993.

The U.S. Army Corps of Engineers coordinates with the State Historical Preservation Office (SHPO) during the 404 permit application process to identify archeological sites. Concerns relating to the 404 WQC should be directed to the U.S. Army Corps of Engineers at (513) 684-6228.

#### Health Assessments

**Comment 13: Commenters expressed concerns about the health of residents living near the landfill and questions about who conducts health studies of the community.**

Response: Ohio EPA has implemented rules in accordance with state laws which are protective of human health and the environment.

Hamilton County Public Health, Division of Epidemiology and Assessment conducts disease and injury surveillance through ongoing collection, analysis and reporting of public health data. Concerns relating to community health studies should be directed to Hamilton County Public Health, Division of Epidemiology.

[www.hamiltoncountyhealth.org/services/for-residents/programs/epidemiology/](http://www.hamiltoncountyhealth.org/services/for-residents/programs/epidemiology/)

#### Operations

**Comment 14: Commenters expressed concerns about the operational practices of the existing landfill and the proposed expansion.**

Response: State rules and regulations establish operational criteria for sanitary landfills, including waste acceptance and placement, disposal restrictions, litter control, daily logs, inspections, daily cover, surface water management and leachate management. Hamilton County Public Health, Ohio EPA and SOAQA perform regular inspections of the landfill. Public records of inspections and findings are available upon request.

## Authorized Maximum Daily Waste Receipt (AMDWR)

**Comment 15:** This project will extend the life of the landfill and there will be an increase in the authorized maximum daily waste receipt to 12,500 tons per day. What is the amount of the increase difference and does it only apply to the new section of the landfill?

Response: Authorized Maximum Daily Waste Receipt (AMDWR) is the maximum amount of solid waste a solid waste facility may receive at the gate in any calendar day. The proposed expansion does not include an AMDWR increase. Rumpke's current AMDWR is 12,500 per day.

## Blasting

**Comment 16:** Commenters expressed concerns about blasting activities at Rumpke.

Response: Ohio EPA does not have regulatory authority over blasting. The Ohio Department of Natural Resources, Division of Mineral Resources, regulates blasting activities in Ohio. <http://minerals.ohiodnr.gov/>

## Hazardous Waste

**Comment 17:** Commenters expressed concerns about hazardous waste being disposed in the landfill.

Response: Rumpke is not authorized to accept regulated hazardous wastes. State rules and regulations require MSW landfills to implement a PCB and hazardous waste prevention and detection program. Rumpke has such a program established at the facility. The program establishes controls for preventing regulated hazardous waste and unauthorized solid waste from entering the landfill. The program details the waste prescreening process, which includes waste characterization and random inspections, and outlines the responsibilities of Rumpke personnel from the landfill manager to the scale house attendant and landfill equipment operators.

Hazardous waste has one of the following four characteristics:

- Ignitability
- Corrosivity
- Reactivity
- Toxicity

Listed hazardous wastes may be found at: [www.epa.gov/hw/defining-hazardous-waste-listed-characteristic-and-mixed-radiological-wastes](http://www.epa.gov/hw/defining-hazardous-waste-listed-characteristic-and-mixed-radiological-wastes).

Federal law treats hazardous waste generated by industry differently than wastes generated by a household. Industrial hazardous waste must be taken to an approved hazardous waste disposal facility. Many household items, such as pesticides, cleaners and paint meet hazardous waste criteria; however, the law allows homeowners to dispose of these hazardous wastes in MSW landfills. While modern MSW landfills are designed to safely accept these products, homeowners have the option to take these substances to a local household hazardous waste collection day. For more information on household hazardous waste recycling events, please contact the Hamilton County Recycling and Solid Waste District at (513) 946-7766.

## Out-of-State Waste

**Comment 18: Rumpke accepts too much out-of-state waste.**

Response: The Commerce Clause of the U.S. Constitution prohibits states from limiting out-of-state waste. Only Congress can make laws that regulate interstate commerce.

In its annual report, Rumpke identifies where waste disposed at the facility originates. During 2018, Rumpke only accepted waste from Ohio, Kentucky and Indiana, totaling 2,345,857.21 tons. Of that waste, 4.2 percent or 98,529.48 tons, was received from Indiana and Kentucky for disposal.

## Daily Cover

**Comment 19: Rumpke should not receive a waiver for daily cover.**

Response: No waiver from the daily cover requirement has been granted to Rumpke. Daily cover is required to be applied to all exposed waste by the end of the working day. Furthermore, waste may not be left exposed for more than 24 hours after unloading. Rumpke operates 24 hours a day, seven days a week, and does not have a traditional end of the working day.

Rumpke complies with the daily cover requirements by ensuring waste is not exposed for more than 24 hours after unloading. Rumpke continuously places waste in the working face, preventing previously unloaded waste from being exposed for more than 24 hours after unloading. For areas not receiving additional waste, Rumpke uses soil or approved alternative daily cover materials such as tarps or finished compost product.

**Comment 20: Class 4 compost should not be used as alternative daily cover (ADC) and explain the difference in compost classifications.**

Response: Alternative Daily Cover (ADC) must provide protection that is comparable to six inches of soil cover and is protective of human health and the environment. Rumpke is approved to use finished compost product and mulch as ADC. This is an existing approval that is not a part of today's permit issuance. The existing ADC authorization requires:

- Placing 8-to-10-inch thick layers over exposed waste by the end of the working day, or more frequently;
- Reapplying compost product if waste becomes exposed;
- Using only on internal slopes;
- Cannot be used as intermediate or final cover; and
- Document use and location of compost as ADC.

Compost classification depends upon the material used to produce the compost. Class 4 compost is produced by a facility that accepts yard waste, agricultural plant materials, bulking agents including, wood chips and paper material, and additives including coffee and tea grounds. Class 3 facilities can accept the same materials as a Class 4 and, in addition, can accept animal waste (manure and related management wastes). Class 2 can accept the same materials as a Class 3 and in addition can accept food scraps. A Class 1 facility can accept mixed solid waste in addition to all the materials allowed in the other classes. Class 1, 2 and 3 may request additional approval to accept dead animals and raw rendering materials.

## Litter Control

**Comment 21:** **A nearby strip mall is impacted by trash and litter from the landfill blown by the wind.**

**Response:** Rumpke is required to employ all reasonable measures to collect, properly contain and dispose of scattered litter. This includes the use of portable wind screens were necessary and frequent patrolling of the area. Rumpke minimizes scattered litter from the working face by promptly compacting waste after unloading and by placing temporary fencing or portable wind screens immediately downwind of the working area. Rumpke periodically inspects for scattered litter to identify areas that need to be policed. Should scattered litter escape the confines of Rumpke, it is policed with the permission of the property owner.

## Explosive Gas Migration

**Comment 22:** **Commenters expressed concerns about explosive gas migration to neighboring properties.**

**Response:** As part of the permit application, Rumpke developed an explosive gas monitoring plan. This plan identifies potential explosive gas migration pathways and details the monitoring procedures of those pathways.

The explosive gas monitoring system includes 27 explosive gas monitoring probes and nine punch bar stations surrounding the landfill. These monitoring locations are sampled monthly to monitor for explosive gas migration. As of June 2019, there were no detections of explosive gas at any monitoring location.

## Waste-to-Energy

**Comment 23:** **Please REQUIRE Rumpke to use the “Waste to Energy” method.**

**Response:** Ohio EPA does not have the regulatory authority to require Rumpke to use the waste-to-energy method. However, Rumpke collects landfill gas produced by decomposing waste and processes it on site into pipeline-quality natural gas. Rumpke also uses natural gas through the local utility to power its truck fleet.

## Recycling

**Comment 24:** **Enforce mandatory recycling for all residents and impose a penalty for not recycling.**

**Response:** State rules and regulations establish several waste management and recycling goals for Solid Waste Management Districts (SWMD) to meet, including:

- Ensuring adequate infrastructure to give residents and commercial businesses opportunities to recycle, and
- Reducing and recycling at least 25 percent of waste generated by residential and commercial sectors and at least 66 percent of waste generated by the industrial sector.

It is up to the SWMDs to determine how to achieve these goals. Hamilton County Recycling and Solid Waste District developed and implemented a 15-Year Solid Waste

Management Plan. The plan is available online at:  
[www.hamiltoncountyrecycles.org/UserFiles/Servers/Server\\_3788196/File/Environmental Services/SolidWaste/About/Solid%20Waste%20Mgmt/solidwasteplan.pdf](http://www.hamiltoncountyrecycles.org/UserFiles/Servers/Server_3788196/File/Environmental%20Services/SolidWaste/About/Solid%20Waste%20Mgmt/solidwasteplan.pdf).

In 2018, Hamilton County residents diverted 55,123 tons of recycling and yard trimmings from the landfill. Concerns relating to community recycling can be directed to Hamilton County Recycling and Solid Waste District. [www.hamiltoncountyrecycles.org/](http://www.hamiltoncountyrecycles.org/)

### Residential Trash Collection

**Comment 25:** **We need the expansion because I want my garbage picked up.**

Response: The approval or denial of the proposed expansion will not affect residential waste collection services. Residential trash will continue to be collected by waste haulers and transported to a licensed MSW landfill for disposal.

**Comment 26:** **When Rumpke doesn't meet a certain operating standard, and there's a penalty with that, the question is, is it self-reported and the penalty is directly paid by Rumpke or do the residents have to report that failure? And then, does the township have to ask Rumpke to finally pay the money? So, we want Rumpke to self-report and self-fund the penalty. Don't make the residents call in and say, you missed picking up on my street. Rumpke has GPS. They know what streets they missed. They should self-report and self-fund those penalties.**

Response: Ohio EPA believes this comment refers to residential waste collection in the township and the procedures for missed waste collection. Ohio EPA does not have the regulatory authority to require waste haulers to self-report or impose a penalty for missed waste collection occurrences. This comment would best be directed to Colerain Township as the waste hauling contract is between the township and the waste hauler.

### Leachate

**Comment 27:** **Does Ohio EPA consider it a violation that Rumpke disposes of more than 50,000 gallons of leachate to the sewer system each day?**

Response: Rumpke is permitted by the Metropolitan Sewer District of Greater Cincinnati (MSDGC) to discharge leachate into the sanitary sewer system by Wastewater Discharge Permit SIU-0105. Questions regarding leachate discharge to the sanitary sewer should be directed to MSDGC at (513) 557-7000.

### Runoff

**Comment 28:** **The proposed expansion will increase runoff and affect area tributaries. Are the sedimentation ponds adequately sized?**

Response: All runoff from Rumpke is currently directed into sedimentation ponds before discharging to Banklick Creek under the NPDES (wastewater discharge) permit. Rumpke currently has four sedimentation ponds on-site. These ponds receive runoff only from the exterior of the landfill and do not receive any water that has been in contact with waste, i.e., leachate.

Currently, surface water is managed by four sedimentation ponds which are designed to handle a 25-year/24-hour storm event for the existing landfill. To accommodate the increased runoff from the expansion, Rumpke proposed modifying one pond and

constructing a larger pond to replace an existing pond at the northeast side of the landfill. As the landfill construction progresses, a third pond on the eastern side of Hugh Road will be removed and any surface water that had been directed to that pond will be directed to the larger pond at the northern end of the landfill. When landfill construction is completed, there will be three sedimentation ponds in total, which have been designed to handle a 25-year/4-hour storm event for the proposed expansion.

Storm water flow from the sedimentation ponds will vary based on the amount of rainfall.

The NPDES permit includes limits that are protective of Banklick Creek, including both the aquatic life as well as the health of citizens who may choose to use Banklick Creek for recreation. Rumpke is not permitted to discharge trash or water that has come into contact with waste. Ohio EPA has included monitoring requirements in the NPDES permit for several parameters to ensure that storm water that may have come in contact with waste is not discharged to Banklick Creek.

### Ground Water

**Comment 29: There are concerns about the ground water because citizens in the Dunlap area have wells.**

Response: Ground water monitoring wells are placed around the landfill perimeter to monitor potential effects to ground water. These monitoring wells are sampled semi-annually and have been for many years. Contact Ohio EPA, Southwest District Office, Division of Materials and Waste Management, to request the ground water monitoring data for the landfill.

State rules and regulations prevent a landfill from being located within the boundaries of a sole source aquifer or within 1,000 feet of water supply wells. The existing landfill and the proposed expansion are not located over a sole source aquifer. Based on publicly available information, there are no known existing private water wells, public water supply wells or developed springs within 1,000 feet of the existing and proposed limits of waste placement.

### February Fire Event

**Comment 30: For several days in February, we watched a massive fire on top of Rumpke's northeast side burning out of control. Flames burned and blew wickedly in all directions in the wind, reaching an estimated more than 60 feet high in the sky.**

Response: The fire event described in the comment was not a fire on the landfill. The landfill gas processing plant was not recycling the landfill gas and diverted gas with a higher percentage of methane to the flare system. Landfill gas with higher methane concentration causes the flame to become more visible. Landfill gas is controlled in this flare system.

### Reaction Area

**Comment 31: What is being done about the fire/reaction in the north end of the landfill?**

Response: In 2010, Ohio EPA issued Director's Final Findings and Orders (DFFOs). Rumpke is required to address elevated temperatures in the north end of the landfill (reaction area). As part of these Orders, 26 activities were identified with which Rumpke had to comply. The DFFOs are still in effect and regulate the actions Rumpke must continue to take due to the conditions in the reaction area. Since 2009, Ohio EPA, SOAQA and Hamilton

County Public Health have met regularly with Rumpke to discuss the reaction area and progress under the 2010 Orders. Currently, this group meets quarterly.

**Comment 32: The reaction will spread to the proposed expansion.**

Response: The proposed expansion is a contiguous lateral and vertical expansion to the east of the existing landfill. The reaction area includes Phases 5, 6 and 7 in the northern portion of the existing landfill. The expansion design ensures the reaction area will remain isolated from the proposed expansion. The two units will remain separated by the existing soil berm, which is approximately 40-feet thick at the top and 700-feet thick at the base. The existing soil berm will prevent the reaction from spreading horizontally into the proposed expansion area. Additionally, sentinel wells are installed in the waste to the south of the reaction area. These wells monitor and detect movement of the reaction area to the south. The reaction area is not part of the proposed vertical expansion and no waste will be placed over the reaction area. This will prevent the reaction from spreading vertically.

**Comment 33: Extinguish the sub surface reaction as recommended by the International Firefighters Association's assessment on landfill fires.**

Response: Ohio EPA does not have the regulatory authority to recommend guidance from another organization.

**Comment 34: There are no guarantees that a similar sub-surface event could not happen in the new expansion territory. (Guarantees to monitoring incoming waste shipments are meaningless, if you don't know what you are looking for.) You also affirmed that there are similar uncontrolled events occurring in other EPA-monitored landfills in the nation.**

Response: The reaction is an ongoing event that is limited to the north end of the existing landfill. Rumpke continues to monitor and maintain the reaction area in accordance with the DFFOs and the 26-point action plan. To help control odors and reduce oxygen infiltration into the reaction area, Rumpke installed additional clay soils and the odor control blanket. Though these efforts did not extinguish the reaction, improvements associated with odor control and oxygen infiltration were made.

Ohio EPA has worked with various experts on abnormal operating conditions, including elevated temperature landfills, to gain a better understanding of these events. However, the circumstances and conditions at other facilities are specific to each impacted facility; and the cause, indicators and response for each occurrence may not be equal.

During the review process, Ohio EPA reviewed the landfill design and control methods proposed to prevent a reaction from occurring in the proposed expansion area.

State rules and regulations require Rumpke to implement a PCB and hazardous waste prevention and detection program. The program establishes controls for preventing regulated hazardous waste and unauthorized solid waste from entering the landfill. The program details the waste prescreening process, which includes waste characterization and random inspections; and outlines the responsibilities of Rumpke personnel from the landfill manager to the scale house attendant and landfill equipment operators.

Ohio EPA acknowledges the occurrence of facilities with abnormal operating conditions. However, Ohio EPA cannot consider the number of abnormal operating condition occurrences associated with other state or U.S. EPA monitored facilities.

**Comment 35: The odor control blanket installed in 2010 is old technology. What 2019 BAT will fix the reaction area?**

Response: The 2010 odor control blanket (OCB) has been replaced but remains the best available technology. The 2010 OCB was a 60-mil textured HDPE geomembrane or plastic liner. In 2012, Rumpke began installing OCB panels with an ethylene vinyl alcohol or EVOH barrier. The EVOH barrier proved to be an improvement over the original OCB. Rumpke continues to install OCB panels with EVOH barrier. As geomembrane improvements develop, Rumpke evaluates the geomembrane. However, current regulations do not include geomembrane specifications for the OCB.

#### Well Temperatures

**Comment 36: Wellhead sampling indicates Rumpke's operating parameters are less than 130 degrees and 5 percent oxygen. Rumpke is not using BAT, since Canadian landfills have wellhead set to less than 85 degrees and 2.5 percent oxygen. And 20-30 percent of Rumpke's well heads are outside of control specifications.**

Response: Ohio EPA does not have the regulatory authority to enforce Canadian operating parameters. Operating parameters for landfill gas collection and control systems are established in federal New Source Performance Standards (NSPS) 40 CFR Part, Subpart WWW and XXX. These rules require the interior wellhead of the gas collection system to operate at less than 55°C (131°F) and with either nitrogen levels less than 20 percent or oxygen levels less than 5 percent.

These rules also contain provisions that allow landfills to request alternative operating parameters while the landfill implements corrective action. Although several gas extraction wells in the reaction area are operating outside the NSPS parameters, the reaction area is operating according to the DFFOs.

#### Odors

**Comment 37: What measures and limits are used when monitoring or evaluating landfill odors.**

Response: State rules and regulations do not have defined measurable standards for odors, as odors are subjective and difficult to quantify. Ohio law allows the director of Ohio EPA to issue permits with such terms and conditions as she finds necessary to protect human health and the environment. This section of the law only addresses nuisances that may endanger public health or safety. Rumpke is required under its permit to reduce such odors.

Odors are considered a nuisance not a primary health threat. Odors will be present at sanitary landfills. Proper operation of the landfill should minimize odors. Rumpke controls odors through maintaining a small working face, covering exposed waste and using a deodorizing misting system. Additionally, Rumpke installed a 56-acre odor control blanket which acts as a physical barrier for odors. If the landfill is creating nuisance conditions, this should be reported to either the Hamilton County Public Health at (513) 946-7800 or SOAQA at (513) 946-7777.

**Comment 38: When you call the odor hotline, how do you know if the complaint is followed up?**

Response: The odor hotline is maintained by SOAQA at (513) 946-7777. Hamilton County Public Health and Rumpke are notified of the complaints received from the hotline. Complaints are investigated and an odor complaint investigation checklist is completed by either

Hamilton County Public Health or Rumpke. The checklist includes the type of concern identified, confirmation or non-confirmation of the issue, possible sources, existing control efforts and improvement recommendations. Follow-up investigations occur after corrective measures are implemented.

Hamilton County Public Health compiles data from odor complaints relating to Rumpke into an annual odor report. The report summarizes odor complaints received and odor surveillance activities during the year. The annual odor reports are available online at: [www.hamiltoncountyhealth.org/services/for-businesses/programs/waste-management/landfills/](http://www.hamiltoncountyhealth.org/services/for-businesses/programs/waste-management/landfills/).

**Comment 39:** **Please conduct an odor assessment and landfill inspections to determine the source of odors.**

Response: Ohio EPA and Hamilton County Public Health (HCPH) conducts routine unannounced inspections of the landfill to ensure compliance with the approved permit. Inspections look at landfill conditions, operational practices and construction activities. Southwest Ohio Air Quality Agency conducts monthly air monitoring measuring methane and total volatile organic compounds. Additionally, HCPH investigates odor complaints to identify potential operating practices and conditions causing odors.

HCPH makes odor assessments in response to odor complaints and has created in-depth reports about the data collected. The following is a link to the 2018 Odor Report: [www.hamiltoncountyhealth.org/wp-content/uploads/2018-Odor-Report.pdf](http://www.hamiltoncountyhealth.org/wp-content/uploads/2018-Odor-Report.pdf).

**Comment 40:** **Is it true the odor is because of the underground fire?**

Response: An operating landfill may have multiple sources of odors including, but not limited to, garbage trucks, the working face, leachate, landfill gas and excavations into the waste mass. Along with these sources, Rumpke's reaction area is producing landfill gas with a distinctive odor. Odors attributed to Rumpke could be from one or more of these sources.

**Comment 41:** **In addition to the techniques, treatments and methods currently being used or proposed, are there any other treatments, methods or techniques that are legally permitted under law that aren't being used or not being used to the extent permitted that will mitigate the fugitive odor problems?**

Response: State rules and regulations require Rumpke to control odors. However, the rules do not specify the methods or techniques to be used. Rumpke minimizes odors through operational practices, such as, maintaining a small working face, covering exposed waste, utilizing a gas collection and control system, and utilizing the deodorizer system. Additionally, Rumpke installed a 56-acre odor control blanket as a physical barrier to reduce the potential for fugitive emissions and odors.

**Comment 42:** **Data compiled by SOAQA reveals the Rumpke Landfill on Hughes Road was the largest air polluter in Hamilton County in 2018. Southwest Ohio Air Quality Agency recorded 250 Rumpke odor complaints in 2018. The next highest air pollution source in Hamilton County had five odor complaints.**

Response: The quantity of odor complaints does not necessarily correlate to the quantity of air pollution from a facility. However, odors can be indicative of an air pollutant. It appears

the reference to “the largest air polluter in Hamilton County” is based on the number of odor complaints and not the emissions.

The Toxic Release Inventory (TRI) database contains summaries of the top facilities with regard to amounts of waste and pollutants released to the air, water and land. Data for industrial facilities in Hamilton County, Ohio can be accessed online at [www.epa.gov/toxics-release-inventory-tri-program](http://www.epa.gov/toxics-release-inventory-tri-program).

#### Deodorizer

**Comment 43: Citizens are concerned with the health effects of the deodorizer spray.**

Response: An Ohio EPA toxicologist reviewed the material safety data sheets for the deodorizer and found nothing in the information that would give cause for potential health effects when used in the manner prescribed in the permit. Anyone experiencing any irritation caused by the compounds used should contact their local health care provider or physician.

#### Rules

**Comment 44: What is the difference between OAC Rule 3745-27-19 and OAC Rule 3745-15-07? Which applies and to where at Rumpke?**

Response: OAC Rule 3745-27-19 is part of the “Solid Waste and Infectious Waste Regulations” and establishes the operational criteria for a sanitary landfill. The operational requirements apply to Rumpke until all closure certifications are submitted and post-closure care begins. OAC Rule 3745-15-07 is part of the “General Provisions on Air Pollution Control” and prohibits air pollution nuisances. OAC Rule 3745-15-07 applies to each emissions unit in Rumpke’s air permit.

**Comment 45: What is the definition of “welfare of the public” as used in 3745-15-07?**

Response: OAC Rule 3745-15-07 does not explicitly define “welfare of the public”. However, OAC Rule 3745-15-02 “Purpose” explains in part that the purpose of the air pollution rules is to secure and maintain air quality which is consistent with the protection of human health and the prevention of injury.

#### ORC 505.20

**Comment 46: Does ORC 505.20 relate to Rumpke’s drilling/extraction of gases?**

Response: No. Rumpke’s gas extraction wells are required to control landfill gas. Ohio Revised Code 505.20 relates to the authority of township trustees to levy a tax on drilling oil and gas wells in the township.

#### Financial Compensation

**Comment 47: Citizens want financial compensation for decreased property values and commerce and illnesses associated with the landfill.**

Response: Ohio EPA has implemented rules in accordance with state laws which are protective of human health and the environment. Ohio’s solid waste rules and regulations allow Ohio EPA to evaluate siting, design, construction and operation of the landfill. Those rules do not allow Ohio EPA to consider property values or require financial compensation. However, host community fees are levied by a township or municipal corporation to offset costs incurred by hosting a landfill. A maximum \$0.25 per ton can be assessed on

all solid waste disposed at the landfill. The fee can be used to maintain roads and public facilities, provide emergency and other public services and compensate for a reduction in property tax revenues due to a reduction in property values.

### Property Taxes

**Comment 48:** **Has anyone considered a property tax rebate on the residences within XX miles of the dump? We pay the same tax rate as others in the township who do not have to experience this major neighborhood problem.**

**Response:** Ohio EPA does not have the regulatory authority to enforce tax laws or offer tax rebates. However, host community fees are levied to offset costs incurred by hosting a landfill, as described in Comment 47. Questions relating to property taxes should be addressed to local officials, such as, Colerain Township or the Hamilton County Auditor.

### Discussions

**Comment 49:** **Citizens want the opportunity to discuss the proposed expansion and landfill operations with Rumpke and Ohio EPA and access to resources to perform an assessment of the landfill's impact on the area.**

**Response:** State rules and regulations require the applicant to hold a public meeting within 45 days of submitting the permit application. At the public meeting, the applicant must provide information and describe the application, as well as, respond to questions and comments. The applicant's meeting gives the public an opportunity to discuss the permit application with the applicant. Rumpke held an applicant's meeting on May 17, 2018. To further discuss the landfill operations or proposed expansion with Rumpke, please contact Rumpke at (513) 851-0122.

State rules and regulations require Ohio EPA to hold a public information session and public hearing. On October 11, 2018, Ohio EPA held a public meeting to provide an update on the permit application review and respond to questions about the application. On April 2, 2019, Ohio EPA held a combined public information session and public hearing. At the information session, Ohio EPA outlined the proposal, described the permitting process, reported on the status of the application and responded to questions. At the public hearing, Ohio EPA gathered formal comments about the project. To further discuss the proposed expansion with Ohio EPA, please contact Michael Harris at (937) 285-6089.

The public can access many Ohio EPA's documents related to this landfill and other sites the Agency permits by making a public records request or by using Ohio EPA's eDocs system. The link to eDocs is <http://edocpub.epa.ohio.gov/publicportal/edochome.aspx>.

To assist in finding documents regarding the Rumpke Sanitary Landfill in Colerain Township, please use the following:

Secondary ID: MSWL018791  
Facility Name: Rumpke Sanitary Landfill

## Public Meeting

**Comment 50:** I learned of the community meetings involving the Rumpke issue through the app “Next Door.” I’m not sure how anyone would have found out otherwise.

Response: State rules and regulations require public meetings to be published in each newspaper of general circulation for the county in which the facility is located. Public meetings include the applicant’s meeting, public information session and public hearing. The public notices for these meetings were published in the *Cincinnati Enquirer*, *Cincinnati Herald* and *Community Press*. Additionally, Ohio EPA maintains a list of public meetings, which is available online at: <https://epa.ohio.gov/calendar>. A news release about the meeting was sent to media in Hamilton County and posted on Ohio EPA’s web site in the section devoted to news releases. Ohio EPA also notified those on Ohio EPA’s interested party list for Rumpke. If you’d like to be added to the interested party list, please contact Heather Lauer at:

Heather Lauer  
Ohio EPA – Public Interest Center  
Phone: (614) 644-2160  
[Heather.Lauer@epa.ohio.gov](mailto:Heather.Lauer@epa.ohio.gov)

## Public Records Request

**Comment 51:** There was a comment about conducting public records requests.

Response: Many of Ohio EPA’s documents are available online through Ohio EPA’s eDocs system, as described in Comment 49. However, some of the older files still need to be scanned and added to the eDocs system. Ohio EPA does not have a central repository for all its records. Each division within Ohio EPA and each of the five district offices house their own files. Therefore, more than one office may need to be contacted to obtain all applicable files on an issue or site. Ohio EPA’s “Procedures for Public Records Request and File Reviews” factsheet explains Ohio EPA’s file review process in more detail. The factsheet is available online at: <https://epa.ohio.gov/portals/47/facts/records.pdf>.

To aid in public records requests, Ohio EPA created a “File Review Request Checklist.” Though the checklist is not required, we strongly recommend using the checklist, as it enables you to easily describe what documents you are looking for and helps the Agency know exactly where to look. The checklist is available online at <http://epa.ohio.gov/Portals/44/pp/PublicRecordsChecklist.docx> or by request at the district office.

To make a public records request for Rumpke, please contact the Southwest District Office at:

Ohio EPA – Southwest District Office  
Attn: Penny Prather-Dix  
401 E. Fifth Street  
Dayton, Ohio 45402-2911  
(937) 285-6025  
(937) 285-6249 FAX  
[Penny.Prather-Dix@epa.ohio.gov](mailto:Penny.Prather-Dix@epa.ohio.gov)

## **Southwest Ohio Air Quality Agency Response to Comments Regarding Air Pollution Permits for Rumpke and GSF Energy**

### **General Comments Expressing Support or Opposition to the Project**

**Comment 52:**        **General comments were received expressing either support for or opposition to the project.**

Response:            Ohio EPA appreciates these comments but may not consider the number of people for or against a project when evaluating permit applications.

### **Odors from the Landfill**

**Comment 53:**        **There are concerns about odors from the reaction area or fire at the Rumpke landfill.**

Response:            In 2010, Ohio EPA issued Director's Final Findings and Orders (Orders) to Rumpke to address elevated temperatures in the north end of the landfill. As part of these Orders, there were 26 activities identified which Rumpke had to comply with. One of these activities was to "Continue to Implement an Odor Control and Response Plan". In 2012, Ohio EPA issued modified Orders which found the facility in violation of Ohio Administrative Code (OAC) rule 3745-27-19(B)(3) for failing to strictly control odors from the facility. The Orders, in part, required installation of additional odor control blanket coverage to help reduce off-site odors.

In response to the reaction in the affected area, SOAQA started air "Loop Monitoring" at various points off-site in the community around the landfill. Currently, SOAQA conducts monitoring on a monthly basis measuring for methane and total volatile organic compounds at 18 points around the landfill. In 2017 and 2018, the SOAQA took 24-hour air samples downwind of the facility and had them analyzed for numerous volatile organic compounds. Ohio EPA's findings from this air monitoring data review were the following: "Based upon an ongoing review of the air emissions data collected to date, there is no immediate short-term or long-term threat from the contaminants being measured."

**Comment 54:**        **Several commenters addressed concerns about perfume or deodorizer odors.**

Response:            The air permit which regulates the "odor control deodorizing system" at Rumpke is not part of the draft action permitting action (P0124272) or public comment period. A previous public hearing was held for this operation in 2013. Even though the odor control deodorizing system was not part of this comment period or draft permit, the current deodorizer safety data sheets were reviewed by Ohio EPA. Using the information provided to Ohio EPA, SOAQA observed nothing in that information that would give cause for potential health effects when used in the manner prescribed in the permit. Anyone experiencing any irritation caused by the compounds used should contact their local health care provider or physician. Also, see the response to Comment 34.

**Comment 55:**        **A few comments were received about gas odors from the facility.**

Response:            The U.S. EPA New Source Performance Standards (40 CFR Part 60, Subpart WWW and XXX) establish operational standards for the gas collection and control system at the Rumpke Landfill to minimize landfill gas emissions and odors escaping off-site from the landfill. The collection system is required to be operated with a negative pressure at each wellhead to ensure the gas is collected. The facility also must conduct quarterly

surface emissions monitoring for methane to ensure the concentrations of methane on the surface of the landfill are below 500 parts per million of methane. If gas odors are noted off-site then any citizen can file a complaint with SOAQA by calling (513) 946-7777.

#### New Source Performance Standard (NSPS) Monthly Data Revealing a Fire

**Comment 56:** A comment was received concerning NSPS monthly data revealing a fire.

Response: See response to Comment 53. The Orders are still in effect and regulate the actions Rumpke must continue to take due to the elevated temperatures in the north end of the landfill.

#### Landfill and Landfill Gas Mining Operations not using Best Available Technology

**Comment 57:** Comments were received that the Landfill and Landfill Gas Mining Operations were not using Best Available Technology.

Response: The requirement to use best available technology is outlined in OAC rule 3745-31-05(A)(3). The permit applications submitted by Rumpke and GSF Energy, LLC were reviewed to ensure both companies would meet the requirements in OAC rule 3745-31-05(A)(3). Both draft air permit P0124272 issued to Rumpke and P0125062 issued to GSF Energy, LLC specifically outline the best available technology requirements for compliance with OAC rule 3745-31-05(A)(3). For more specifics see Section b) of both permits. The best available technology requirements apply for the lifetime of the permit.

#### Air Pollution Coming from the Facility

**Comment 58:** Comments were received concerned about air pollution coming from the facility.

Response: Both air permits contain emissions limitations and additional terms and conditions to ensure the emissions from both facilities comply with the Ohio EPA and U.S. EPA regulations. Currently, the SOAQA conducts monitoring on a monthly basis measuring for methane and total volatile organic compounds at 18 points around the landfill. In 2017 and 2018, SOAQA took 24-hour air samples downwind of the facility and had it analyzed for numerous volatile organic compounds. Ohio EPA's findings from this air monitoring data review were the following: "Based upon an ongoing review of the air emissions data collected to date, there is no immediate short-term or long-term threat from the contaminants being measured."

#### Past Zoning Agreements between Rumpke and Colerain Township

**Comment 59:** Several commenters had concerns about past zoning agreements between Rumpke and Colerain Township.

Response: Ohio EPA does not have the regulatory authority to enforce past zoning agreements between Rumpke and Colerain Township.

#### General Regulations and Operations

**Comment 60:** Do more flares or daily cover, etc. equate to reductions in fugitive odors?

Response: Please see the link for more information about landfill gas: [www.atsdr.cdc.gov/HAC/landfill/html/appe.html#1](http://www.atsdr.cdc.gov/HAC/landfill/html/appe.html#1). See Chapter 5 for an explanation of Landfill Gas Control Measures.

**Comment 61:** As part of its permit application, Rumpke has requested that all of the landfill gas (LFG) control device requirements in the current PTI be included in a separate PTI and Title V operating permit for GSF Energy, LLC (GSF). GSF owns and operates the gas plant and flares at the Rumpke site.

**If it is increasing everything else, why aren't the flares also being increased proportionately? Doesn't the proportionate reduction of flares to capture fugitive methane, etc. mean that the odors will necessarily increase? So, is Rumpke bifurcating itself from this energy company in order to reduce emissions from Rumpke and put those in a different name in order to segregate the numbers as a whole? Is GSF Energy a subsidiary of Rumpke? And does it generally operate as one entity?**

**Response:** The majority of landfill gas is captured and conveyed to the gas plant for recovery (recycled) and sale of landfill gas. Flares are used on an as-needed basis based on monitoring of the landfill gas.

Most odor complaints are related to working face/garbage odors, not landfill gas extraction. GSF Energy owns and operates the gas plant and flares at the site. As part of the permitting process, Rumpke and GSF Energy provided information demonstrating that both facilities should be considered separate for air permitting purposes. Based on recent guidance and a review by Ohio EPA, it was determined that each facility could be considered separate and each should be issued its own permit. The requirements that each facility must comply with are outlined in its respective draft permits.

**Comment 62:** Do the increased PM and PM-10 emission rates equate to an overall increase in fugitive odors? Does it mean properties nearby will have this particulate matter on the properties?

**Response:** The increased PM/PM10 emissions rates don't equate to an overall increase in fugitive odors. Term C.2.(c)(9) on page 29, requires solid waste be deposited, spread and compacted in such a manner to minimize or prevent visible emissions of dust.

**Comment 63:** There will be a decrease in the permitted PM and PM-10 emissions based on the revised calculations for P902 and F001. Additionally, PM-2.5 has been included in the new permit.

**So, we are increasing limits for PM, PM-10 and PM-2.5. Do they contribute to a rise in fugitive odors?**

**Response:** There will be no increase in the permit allowable emissions from the facility.

**Comment 64:** An LFG generation rate limit of 16,702.9 mmscf per year has been established in order to ensure compliance with the allowable emission limits in the permit.

**What does "to ensure compliance" relative to the LFG rate limit mean? What is LFG? Will the GSF Energy be getting a different permit?**

**Response:** The allowable emission limits are based on the Landfill Gas (LFG) generation rate. If the actual LFG generation rate is below the established limit, then the facility is in compliance with the allowable emission limits. GSF Energy has its own permit with its own limits (see P0125062).

**Comment 65:** Total Permit Allowable Emissions Summary (for information purposes only):  
Pollutant Tons Per Year 130.22 PM-10 33.19 PM-2.5 4.21 NMOC 745.7 CO 34.18  
Methane 73,617 H2S 10.47 CFC-11 0.60 CFC-12 16.43

**What are the current allowable emissions for the same facility at the facility (assuming that the entirety of the facility is what these numbers would reflect? If not, please explain how these numbers are attributed to what locations, devices, etc. If per area (etc), then what are the total emission rates for each area, device, etc. in the entirety of the facility and the cumulative totals. And, if separated by area, location, device, etc. are the emissions permitted to be attributable to another device, area, etc? Don't these increases necessarily equate to an increase in fugitive emissions and odors?)**

**Response:** The current allowable emissions are listed in the current Title V permit for the Rumpke Sanitary Landfill (facility ID 1431092049) which can be found on Ohio EPA's website: <https://epa.ohio.gov/dapc/newpermits/issued>.

All permits to install have a Total Permit Allowable Emissions Summary section. It is the sum of the emissions from each emissions unit that is part of the permit. Each emissions unit is listed in the body of the permit with its associated allowable emissions. This information can be obtained in the current draft permits (P0124272 and P0125062).

These emissions can be either fugitive or stack.

**Comment 66:** **Has there ever been a finding that Rumpke (Colerain) has violated Ohio Administrative Code rule 3745-15-07? If so, can I have a copy of all such violations/citations? Has any other Ohio facility ever received such violation, and can I have copies?**

**Response:** No, Rumpke has not been found in violation of OAC rule 3745-15-07. Yes, other facilities in Ohio have been found in violation of OAC rule 3745-15-07 in the past. You can find more information on submitting a public records request at the following: [www.epa.state.oh.us/dir/publicrecords#112015048-public-records](http://www.epa.state.oh.us/dir/publicrecords#112015048-public-records).

#### Fire/Reaction at the Landfill

**Comment 67:** **Several commenters addressed concerns about the reaction area or fire at the Rumpke landfill.**

**Response:** See Ohio EPA response to Comment 34.

#### Identifying Violations at the Facility

**Comment 68:** **How are violations identified at the facility and to whom are penalties paid.**

**Response:** Violations may be identified during facility inspections. Inspections are conducted as a result of a complaint response, during a review of records maintained by the facility, or during review of reports submitted as required by the facility's permit. In some cases, violations may be self-reported. If Ohio EPA issues Director's Final Findings and Orders that specify a civil penalty, the penalties are sent to Ohio EPA.

## Odor and Chemical Detection Units

**Comment 69: Odor and chemical detection units should be placed in the community.**

Response: One of the ways the SOAQA responds to odor complaints is by conducting air monitoring in the community. Now and in the past, Loop air monitoring is conducted on a monthly basis measuring for methane and total organic compounds at 18 points around the landfill. In 2017 and 2018, SOAQA took 24-hour air samples downwind of the facility and had them analyzed for numerous volatile organic compounds. Ohio EPA's findings from this air monitoring data review were the following: "Based upon ongoing review of the air emissions data collected to date, there is no immediate short-term or long-term threat from the contaminants being monitored."

## Separation of the Air Permits

**Comment 70: Will there be an increase in the allowable air emissions.**

Response: There will not be an increase in the allowable air emissions when comparing the current permit issued to Rumpke, which covered the landfill and gas plants combined, with the draft permits P0124272 and P0125062 issued to Rumpke and GSF Energy, Inc., which separate the landfill from the gas plant.

**Comment 71: These permits should be a new permit.**

Response: Based upon a review of the air permit applications submitted by Rumpke and GSF Energy, LLC. Ohio EPA has determined that these permit actions should be considered administrative modifications under OAC Chapter 3745-31.

## Odor Assessment and Free Radicals

**Comment 72: Please conduct an odor assessment.**

Response: See response to Comment 39.

**Comment 73: A comment was received about free radicals.**

Response: Ohio EPA does not regulate free radicals in the air permitting process.

**Comment 74: A comment was received about the expanded landfill being a major source of pollutants.**

Response: Based upon review of the permit applications submitted it was determined that the expansion of the landfill would not be considered a "major modification" as defined in OAC rule 3745-31-01. Both Rumpke and GSF Energy, Inc. will be "major sources" as defined in OAC rule 3745-77-01 and will be required to have Title V operating permits.

**Comment 75: Dust from the facility impacts schools and nearby property.**

Response: Both draft permits require compliance with Ohio EPA's particulate matter standards found in OAC Chapter 3745-17. Particulate emission limitations are established in both permits as part of compliance with Ohio EPA best available technology regulations. Also,

previous air monitoring was conducted for particulate matter 10 microns in size and smaller near the Rumpke Landfill. The results of this monitoring showed compliance with the U.S. EPA National Ambient Air Quality Standards for PM10, which is a health-based standard.

**End of Response to Comments**



**FINAL**

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

Facility ID:	1431093220
Permit Number:	P0125062
Permit Type:	Administrative Modification
Issued:	8/12/2019
Effective:	8/12/2019





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

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**Final Permit-to-Install**  
GSF ENERGY, LLC  
**Permit Number:** P0125062  
**Facility ID:** 1431093220  
**Effective Date:** 8/12/2019

## Authorization

Facility ID: 1431093220  
Facility Description:  
Application Number(s): A0061577  
Permit Number: P0125062  
Permit Description: Administrative modification to separate gas plants from Rumpke Sanitary Landfill permit.  
Permit Type: Administrative Modification  
Permit Fee: \$1,625.00  
Issue Date: 8/12/2019  
Effective Date: 8/12/2019

This document constitutes issuance to:

GSF ENERGY, LLC  
10795 Hughes Rd  
Cincinnati, OH 45247

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:

Southwest Ohio Air Quality Agency  
250 William Howard Taft Rd.  
Cincinnati, OH 45219  
(513)946-7777

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

A handwritten signature in black ink that reads "Laurie A. Stevenson".

Laurie A. Stevenson  
Director



## Authorization (continued)

Permit Number: P0125062

Permit Description: Administrative modification to separate gas plants from Rumpke Sanitary Landfill permit.

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

<b>Emissions Unit ID:</b>	<b>P001</b>
Company Equipment ID:	LFG Plant #1
Superseded Permit Number:	P0112732
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P002</b>
Company Equipment ID:	P002
Superseded Permit Number:	P0112732
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P003</b>
Company Equipment ID:	P003
Superseded Permit Number:	P0112732
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P004</b>
Company Equipment ID:	LFG Collection System
Superseded Permit Number:	P0112732
General Permit Category and Type:	Not Applicable



**Final Permit-to-Install**  
GSF ENERGY, LLC  
**Permit Number:** P0125062  
**Facility ID:** 1431093220  
**Effective Date:** 8/12/2019

## **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) and A. 6.d), Compliance Requirements
  - (4) Standard Term and Condition A.9., Reporting Requirements
  - (5) Standard Term and Condition A.10., Applicability
  - (6) Standard Term and Condition A.11.b) through A.11.e), Construction of New Source(s) and Authorization to Install
  - (7) Standard Term and Condition A.14., Public Disclosure
  - (8) Standard Term and Condition A.15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations
  - (9) Standard Term and Condition A.16., Fees
  - (10) Standard Term and Condition A.17., Permit Transfers

**2. Severability Clause**

- a) A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.
- b) All terms and conditions designated in parts B and C of this permit are federally enforceable as a practical matter, if they are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under State law only, only if specifically identified in this permit as such.

**3. General Requirements**

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

- b) It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c) This permit may be modified, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d) This permit does not convey any property rights of any sort, or any exclusive privilege.
- e) The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

#### **4. Monitoring and Related Record Keeping and Reporting Requirements**

- a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
  - (1) The date, place (as defined in the permit), and time of sampling or measurements.
  - (2) The date(s) analyses were performed.
  - (3) The company or entity that performed the analyses.
  - (4) The analytical techniques or methods used.
  - (5) The results of such analyses.
  - (6) The operating conditions existing at the time of sampling or measurement.
- b) Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
  - (1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Southwest Ohio Air Quality Agency.

- (2) Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the Southwest Ohio Air Quality Agency. The written reports shall be submitted (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 Southwest Ohio Air Quality Agency every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
  - (4) This permit is for an emissions unit located at a Title V facility. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
- d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

## **5. Scheduled Maintenance/Malfunction Reporting**

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

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

## **6. Compliance Requirements**

- a) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the appropriate Ohio EPA District Office or contracted

local air agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the electronic signature date shall constitute the date that the required application, notification or report is considered to be "submitted". Any document requiring signature may be represented by entry of the personal identification number (PIN) by responsible official as part of the electronic submission process or by the scanned attestation document signed by the Authorized Representative that is attached to the electronically submitted written report.

Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a Responsible Official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

- b) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
  - (1) At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
  - (2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
  - (3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
  - (4) As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c) The permittee shall submit progress reports to the Southwest Ohio Air Quality Agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
  - (1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
  - (2) An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

## **7. Best Available Technology**

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

**8. Air Pollution Nuisance**

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

**9. Reporting Requirements**

The permittee shall submit required reports in the following manner:

- a) Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the Southwest Ohio Air Quality Agency.
- b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Southwest Ohio Air Quality Agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

**10. Applicability**

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

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

- a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.
- b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. This deadline may be extended by up to 12 months if application is made to the

Director within a reasonable time before the termination date and the permittee shows good cause for any such extension.

- c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed by marking the affected emissions unit(s) as "permanently shut down" in "Air Services" along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update electronically will constitute notifying the Director of the permanent shutdown of the affected emissions unit(s).
- d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31). All records relating to any permanently shutdown 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 other any 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 (12) 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**  
GSF ENERGY, LLC  
**Permit Number:** P0125062  
**Facility ID:** 1431093220  
**Effective Date:** 8/12/2019

## **B. Facility-Wide Terms and Conditions**

1. This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
  - a) For the purpose of a permit-to-install document, the facility-wide terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
    - (1) None.
  - b) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
    - (1) None.
2. The following abbreviations are used throughout this permit:

NO<sub>x</sub> = Nitrogen Oxides

CO = Carbon Monoxide

OC = Organic Compounds

VOC = Volatile Organic Compounds

NMOC = Non-methane Organic Compounds

PE = Particulate matter measurable by the applicable test methods in 40 CFR Part 60, Appendix A, "Standards of Performance for New Stationary Sources"

PM<sub>10</sub> = Particulate matter with an aerodynamic diameter less than or equal to a nominal ten micrometers as measured either by a reference method that is based on 40 CFR Part 50, Appendix J and designated in accordance with 40 CFR Part 53 or by an equivalent method designated in accordance with 40 CFR Part 53

PM<sub>2.5</sub> = Particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers as measured either by a reference method that is based on 40 CFR Part 50, Appendix L and designated in accordance with 40 CFR Part 53 or by an equivalent method designated in accordance with 40 CFR Part 53

SO<sub>2</sub> = Sulfur dioxide

HAP = Hazardous Air Pollutant

TPY = Tons per year



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PTI = Permit to Install

CFR = Code of Federal Regulations

OAC = Ohio Administrative Code

ORC = Ohio Revised Code



**Final Permit-to-Install**  
GSF ENERGY, LLC  
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## **C. Emissions Unit Terms and Conditions**

**1. P001, LFG Plant #1**

**Operations, Property and/or Equipment Description:**

2,190 MMscf/year Landfill Gas Recovery Process; Gas Plant #1

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	<p>Emissions from P001 and P002, combined, shall not exceed the following:</p> <p>NMOC emissions shall not exceed 8.50 pounds per hour and 34.65 TPY;</p> <p>CO emissions shall not exceed 14.75 pounds per hour and 40.96 TPY;</p> <p>PE emissions shall not exceed 4.49 pounds per hour and 11.94 TPY;</p> <p>PM<sub>10</sub> emissions shall not exceed 4.49 pounds per hour and 11.94 TPY;</p> <p>PM<sub>2.5</sub> emissions shall not exceed 4.49 pounds per hour and 11.94 TPY;</p> <p>NOx emissions shall not exceed 6.44 pounds per hour and 8.15 TPY;</p> <p>SO<sub>2</sub> emissions shall not exceed 3.42</p>

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>pounds per hour and 7.11 TPY;</p> <p>Hydrogen chloride (HCl) emissions shall not exceed 25.62 TPY;</p> <p>Hydrogen fluoride (HF) emissions shall not exceed 3.28 TPY;</p> <p>Methane emissions shall not exceed 599 TPY.</p> <p>The annual emissions include the emissions from the off-spec gas combustor.</p> <p>See b)(2)g., c)(1), and c)(2)</p>
b.	OAC rule 3745-17-07(A)	<p>The limitation associated with this rule is less stringent than the visible emission limitation established in accordance with OAC rule 3745-31-05(A)(3).</p> <p>See b)(2)g.</p>
c.	<p>40 CFR Part 60, Subpart WWW or XXX          [40 CFR Parts 60.1-19 and 60.750-759 or 60.760-769]</p> <p><i>Standards of Performance for Municipal Solid Waste (MSW) Landfills</i></p> <p>[In accordance with 60.750, 60.751, and 60.752, this emissions unit is associated with a MSW landfill that commenced modification on or after May 30, 1991, with a design capacity greater than 2.5 megagrams and 2.5 million cubic meters.]</p> <p>After construction of the landfill expansion commences (Authorized by permit # P0124272 issued to RSL, Inc. (Facility ID 1431092049)) in accordance with 40 CFR Part 60.760(a) and 60.762(b), this facility will be associated with a MSW landfill that commenced modification after July 17, 2014 having a design</p>	<p>See b)(2)a., b)(2)b., b)(2)c., b)(2)d., b)(2)f., c)(4) and c)(5).</p>

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	capacity greater than 2.5 million MG and 2.5 million m <sup>3</sup> subject to the emissions limitations/control measures specified in 40 CFR Part 60, Subpart XXX upon NMOC emissions equaling or exceeding 34 MG/yr.]	
d.	40 CFR Part 63, Subpart AAAA [40 CFR 63.1930-1990]  <i>National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills</i>  [In accordance with 63.1935 and 63.1940, this emissions unit is associated with an existing affected MSW landfill.]	The permittee shall comply with the requirements of 40 CFR Part 60, Subpart WWW. [40 CFR 63.1955(a)(1)]  See b)(2)e. and c)(6).
e.	40 CFR 63.1-15 [40 CFR 63.1930-1990]	Table 1 to Subpart AAAA of Part 63 – Applicability of General Provisions to Subpart AAAA shows which parts of the General Provisions in 40 CFR 63.1-15 apply.

(2) Additional Terms and Conditions

- a. Until construction of the expansion authorized by permit # P0124272, issued to RSL Inc. (Facility ID 1431092049), is commenced and 40 CFR Part 63, Subpart AAAA is modified, the permittee shall comply with the applicable requirements in 40 CFR Part 60, Subparts A and WWW, including the following sections:

60.752(b)(2)(i)	Collection and control system design plan requirements
60.752(b)(2)(ii)	Collection and control system installation
60.752(b)(2)(iii)	Route all collected gas to a control system
60.752(b)(2)(iv)	Operation of the collection and control device(s) in accordance with 60.753, 60.755, and 60.756.
60.752(b)(2)(v)(A) through (C)	Provisions for capping or removal of collection and control system

- b. After construction of the expansion authorized by permit # P0124272, issued to RSL Inc. (Facility ID 1431092049), is commenced, the permittee shall comply with the applicable restrictions under 40 CFR Part 60, Subparts A and XXX, including the following sections:

60.762(b)(2)(i)	Collection and control system design plan requirements
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60.762(b)(2)(ii)	Collection and control system installation
60.762(b)(2)(iii)	Route all collected gas to a control system
60.762(b)(2)(iv)	Operation of the collection and control device(s) in accordance with 60.753, 60.755, and 60.756.
60.762(b)(2)(v)(A) through (C)	Provisions for capping or removal of collection and control system

- c. Pursuant to 60.752(b)(2)(iii), the permittee shall route all the collected gas to a control system that complies with the requirements in either i., ii., or iii. below:
- i. An open flare designed and operated in accordance with 40 CFR 60.18 except as noted in 60.754(e);
  - ii. A control system designed and operated to reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control to either reduce NMOC by 98 weight-percent or reduce the outlet NMOC concentration to less than 20 parts per million (ppm) by volume, dry basis as hexane at 3 percent oxygen. The reduction efficiency or ppm by volume shall be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using test methods specified in 60.754(d);
    - (a) If a boiler or process heater is used as the control device, the landfill gas stream shall be introduced into the flame zone.
    - (b) The control device shall be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in 60.756.
  - iii. A treatment system that processes the collected gas for subsequent sale or use. All emissions from any atmospheric vent from the gas treatment system shall be subject to the requirements of 60.752(b)(2)(iii)(A) or (B).
- d. Pursuant to 60.762(b)(2)(iii), the permittee shall route all the collected gas to a control system that complies with the requirements in either i., ii., or iii. below:
- i. A non-enclosed flare designed and operated in accordance with 40 CFR 60.18 except as noted in 60.764(e);
  - ii. A control system designed and operated to reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control to either reduce NMOC by 98 weight-percent or reduce the outlet NMOC concentration to less than 20 parts per million (ppm) by volume, dry basis as hexane at 3 percent oxygen. The reduction efficiency or ppm by volume shall be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using test methods specified in 60.764(d). The performance test is not required for boilers and process heaters with

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

- (a) If a boiler or process heater is used as the control device, the landfill gas stream shall be introduced into the flame zone.
  - (b) The control device shall be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in 60.766.
- iii. A treatment system that processes the collected gas for subsequent sale or beneficial use such as fuel for combustion, production of vehicle fuel, production of high-Btu gas for pipeline injection, or use as a raw material in a chemical manufacturing process. Venting of treated landfill gas to the ambient air is not allowed. If the treated landfill gas cannot be routed for subsequent sale or beneficial use, then the treated landfill gas must be controlled according to the requirements of 60.762(b)(2)(iii)(A) or (B).
- iv. All emissions from an atmospheric vent from the gas treatment system are subject to the requirements of paragraph (b)(2)(iii)(A) or (B) of this section. For purposes of this subpart, atmospheric vents located on the condensate storage tank are not part of the treatment system and are exempt from the requirements of paragraph (b)(2)(iii)(A) or (B) of this section.
- e. The permittee shall comply with the applicable requirements under 40 CFR Part 63, Subpart AAAAA, including the following sections:
- |            |  |
|------------|--|
| 63.1955(b) | Requirements for sources with collection and control system(s) |
|------------|--|
- f. The equipment that constitutes the gas collection and control system shall be properly maintained and kept in good operating condition at all times.
- g. Visible particulate emissions from the stacks associated with emission unit P001 shall not exceed 10% opacity, as a 6-minute average.
- h. Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the visible particulate emission limitations, a properly designed and operated landfill gas collection system and a control system capable of reducing NMOC in the collected gas by 98% or an outlet concentration of 20 ppmv hexane at 3% oxygen, compliance with 40 CFR Part 60, Subpart WWW, 40 CFR Part 60, Subpart XXX and 40 CFR Part 63, Subpart AAAAA.
- i. The hourly emission limitations are based upon the emissions unit's potential to emit. Therefore, no additional monitoring, record keeping or reporting requirements are required to demonstrate compliance with these emission limitations.
- j. The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States



Environmental Protection Agency, 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 60 are also federally enforceable.

- k. The application and enforcement of the provisions of the National Emission Standards for Hazardous Air Pollutants (NESHAP), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 61, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 61 are also federally enforceable.

c) Operational Restrictions

- (1) The maximum annual landfill gas throughput for emissions units P001-P004 combined shall not exceed 10,783,603,800 standard cubic feet (SCF) based upon a rolling 12-month summation.
- (2) The maximum annual gas throughput for the off-spec gas flare (serving Plants 1 and 2) shall not exceed 67.64 million standard cubic feet (SCF).
- (3) Whenever any enclosed combustor(s) are in operation, the average combustion temperature for any 3-hour block of time shall be no more than 82.4 degrees Fahrenheit (28 degrees Celsius) below the average temperature during the most recent test which demonstrated compliance with b)(2)b.
- (4) Until construction of the expansion authorized by permit # P0124272, issued to RSL Inc. (Facility ID 1431092049), is commenced and 40 CFR Part 63, Subpart AAAA is modified, the permittee shall comply with the applicable requirements in 40 CFR Part 60, Subparts A and WWW, including the following sections:

60.753(e) and (f)	Overall collection and control system operating and shutdown requirements
60.753(g)	Corrective action requirements
60.755(e)	Startup, shutdown, and malfunction provisions and time period limitations

- (5) After construction of the expansion authorized by permit # P0124272, issued to RSL Inc. (Facility ID 1431092049), is commenced, the permittee shall comply with the applicable restrictions under 40 CFR Part 60, Subparts A and XXX, including the following sections:

60.763(e) and (f)	Overall collection and control system operating and shutdown requirements
60.763(g)	Corrective action requirements
60.765(e)	Startup, shutdown, and malfunction provisions and time period limitations

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

63.1960	General and continuing compliance requirements, including
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	requirements for written startup, shutdown, and malfunction (SSM) plan
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d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain monthly records of the following information:
  - a. the total landfill gas throughput for each month for emissions units P001-P004 combined; and
  - b. the rolling, 12-month summation of the landfill gas throughput for emissions units P001-P004 combined.
- (2) The permittee shall operate and maintain a continuous gas flow monitor and recorder which measures and records the total gas flow to the off-spec gas flare (serving Plants 1 and 2) when the emissions unit is in operation. The gas flow monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals. The permittee shall collect and record the total volume of gas sent to the off-spec gas flare, in million scf, on an annual basis.
- (3) Until construction of the expansion authorized by permit # P0124272, issued to RSL Inc. (Facility ID 1431092049), is commenced and 40 CFR Part 63, Subpart AAAA is modified, the permittee shall comply with the applicable monitoring and recordkeeping requirements in 40 CFR Part 60, Subparts A and WWW, including the following sections:

60.753(g)	Overall monitoring and corrective action requirements
60.756(b)(1)	Requirements for enclosed combustor continuous temperature monitoring device.
60.756(b)(2)	Requirements for enclosed combustor gas flow or bypass monitoring device.
60.758(b)	Record keeping requirements for control equipment
60.758(b)(2)	Record keeping requirements for temperature and NMOC percent reduction of enclosed combustion device(s).
60.758(c)	Record keeping requirements for equipment operating parameters
60.758(c)(1)	Record keeping requirements for combustion temperature exceedances.
60.758(c)(2)	Record keeping requirements for gas flow or bypass
60.758(c)(4)	Record keeping requirements for open flare operation without flame or flare pilot flame.
60.758(e)	Record keeping requirements for exceedances of operational standards in 60.753

- (4) After construction of the expansion authorized by permit # P0124272, issued to RSL Inc. (Facility ID 1431092049), is commenced, the permittee shall comply with the applicable

monitoring and recordkeeping requirements in 40 CFR Part 60, Subparts A and XXX, including the following sections:

60.763(g)	Overall monitoring and corrective action requirements
60.766(b)(1)	Requirements for enclosed combustor continuous temperature monitoring device.
60.766(b)(2)	Requirements for enclosed combustor gas flow or bypass monitoring device.
60.768(b)	Record keeping requirements for control equipment
60.768(b)(2)	Record keeping requirements for temperature and NMOC percent reduction of enclosed combustion device(s).
60.768(c)	Record keeping requirements for equipment operating parameters
60.768(c)(1)	Record keeping requirements for combustion temperature exceedances.
60.768(c)(2)	Record keeping requirements for gas flow or bypass
60.768(c)(4)	Record keeping requirements for open flare operation without flame or flare pilot flame.
60.768(e)	Record keeping requirements for exceedances of operational standards in 60.753
60.768(h)	Each owner or operator subject to the provisions of 40 CFR Part 60, Subpart XXX must keep for at least 5 years up-to-date, readily accessible records of all collection and control system monitoring data for parameters measured in 40 CFR 60.766(a)(1), (2) and (3), except as provided in 40 CFR Part 60.767(c)(2).
60.768(i)	Any records required to be maintained that are submitted electronically may be maintained in electronic format.

- (5) The permittee shall collect and record the following information for each day:
- a. all 3-hour blocks of time during which the average combustion temperature within any enclosed combustor, when the emissions unit was in operation, was more than 82.4 degrees Fahrenheit (28 degrees Celsius) below the average temperature during the most recent test which demonstrated compliance with b)(2)b.; and
  - b. a log of the downtime for the capture (collection) system, control device and monitoring equipment when the associated emissions unit was in operation.

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

63.1975	Requirements for computation of 3-hour block averages, excluding listed events
63.1980(a)	Record keeping requirements as specified in 40 CFR Part 60, Subpart WWW
63.1980(b)	Record keeping requirements as specified in 40 CFR Part 60, Subpart A and Table 1 of Subpart AAAAA, including SSM plans

- (7) The permittee shall maintain records which document the annual CO, PE, PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>x</sub>, SO<sub>2</sub>, HCl, HF and methane emissions for this emissions unit.

e) Reporting Requirements

- (1) Until construction of the expansion authorized by permit # P0124272, issued to RSL Inc. (Facility ID 1431092049), is commenced and 40 CFR Part 63, Subpart AAAAA is modified, the permittee shall submit notifications and reports to the appropriate Ohio EPA District office as required pursuant to 40 CFR Part 60, Subparts A and WWW, per the following sections:

60.757(f)	Annual reporting requirements
60.757(g)	Initial performance test reporting requirements

- (2) After construction of the expansion authorized by permit # P0124272, issued to RSL Inc. (Facility ID 1431092049), is commenced, the permittee shall submit notifications and reports to the appropriate Ohio EPA District office as required pursuant to 40 CFR Part 60, Subparts A and XXX, per the following sections:

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

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

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

63.1965	Deviation definition and requirements
63.1980(a)	Reporting requirements as specified in 40 CFR Part 60, Subpart WWW; except that annual report described under 60.757(f) above must be submitted every 6 months
63.1980(b)	Reporting requirements as specified in 40 CFR Part 60, Subpart A and Table 1 of Subpart AAAAA, including SSM plan reports

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

- a. an identification of each 3-hour block of time during which the average combustion temperature within the enclosed combustor, when the emissions unit was in operation, was more than 82.4 degrees Fahrenheit (28 degrees Celsius) below the average temperature during the most recent test which demonstrated compliance with b)(2)b.;
- b. all periods when the gas stream is diverted from the control device or recovery system through a bypass line or the indication of bypass flow or any record which indicates that the bypass line valve was not maintained in the closed position;
- c. the description and duration of all periods when the recovery and treatment system was not operating for a period exceeding 1 hour and the length of time the recovery and treatment system was not operating.
- d. all exceedances of the rolling, 12-month limitation of the landfill gas throughput for emissions units P001-P004, combined.

Should a deviation occur, the deviation report shall include details sufficient to determine compliance with the time line provisions established under 40 CFR Part 60.755. The quarterly reporting requirement above may be more stringent than annual reporting requirements specified in 40 CFR Part 60, Subpart WWW or 40 CFR Part 60, Subpart XXX, and semi-annual reporting requirements specified in 40 CFR Part 63, Subpart AAAA. The permittee shall comply with all applicable reporting requirements, including any less stringent requirements.

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

- (5) The permittee shall submit annual reports that specify the total amount of gas throughput in the off-spec gas flare (for Plants 1 and 2), in million scf. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific data for this emissions unit in the annual Fee Emission Report.
- (6) The permittee shall submit annual reports that specify the total NMOC, CO, PE, PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>x</sub>, SO<sub>2</sub>, HCl, HF, methane emissions from this emissions unit for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific data for this emissions unit in the annual Fee Emission Report.

f) Testing Requirements

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

a. Emission Limitation:

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

Applicable Compliance Method:

Compliance shall be demonstrated by compliance with the monitoring and testing requirements of 40 CFR Part 60, Subpart WWW and Subpart XXX as specified in d)(3) and d(4) and f)(2), f)(3), and f)(4) below.

b. Emission Limitations:

Visible particulate emissions from the stacks associated with emission unit P001 shall not exceed 10% opacity, as a 6-minute average.

Applicable Compliance Method:

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

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

c. Emission Limitations:

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

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

CO emissions shall not exceed 14.75 pounds per hour and 40.96 TPY;

PE emissions shall not exceed 4.49 pounds per hour and 11.94 TPY;

PM<sub>10</sub> emissions shall not exceed 4.49 pounds per hour and 11.94 TPY;

PM<sub>2.5</sub> emissions shall not exceed 4.49 pounds per hour and 11.94 TPY;

NO<sub>x</sub> emissions shall not exceed 6.44 pounds per hour and 8.15 TPY;

SO<sub>2</sub> emissions shall not exceed 3.42 pounds per hour and 7.11 TPY;

Methane emissions shall not exceed 599 TPY;

HCl emissions shall not exceed 25.62 TPY; and

HF emissions shall not exceed 3.28 TPY.

Applicable Compliance Method:

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

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

The annual emission limitations are based upon Plant 1 and Plant 2 operating 8,760 hours per year and include compliance with the annual gas flow limitation to the off-spec gas flare, which is determined by the record keeping requirements

in d)(1). Therefore, provided that the permittee complies with the hourly emission limitations and the gas limitation to the off-spec gas flare, compliance with the annual emission limitations will also be demonstrated.

- (2) Until construction of the expansion authorized by permit # P0124272, issued to RSL Inc. (Facility ID 1431092049), is commenced and 40 CFR Part 63, Subpart AAAA is modified, the permittee shall comply with the applicable testing requirements in 40 CFR Part 60, Subparts A and WWW, including the following sections:

60.754(b)	NMOC emission rate calculation for equipment removal
60.754(c)	NMOC emission rate determination for PSD
60.752(b)(2)(iii)(B) and 60.754(d)	Performance test and test method requirements for enclosed combustor(s)

- (3) After construction of the expansion authorized by permit # P0124272, issued to RSL Inc. (Facility ID 1431092049), is commenced, the permittee shall comply with the applicable testing requirements under 40 CFR Part 60, Subparts A and XXX, including the following sections:

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

- (4) The permittee shall conduct, or have conducted, emission testing for gas recovery plant 1 thermal oxidizer (TOX) unit and associated gas recovery off-spec (enclosed) combustor in accordance with the following requirements:

- a. The emission testing shall be conducted as follows:
  - i. for Plant 1 (the TOX unit only), within 6 months prior to 10/02/20.
- b. The emission testing for Plant 1 shall be conducted to demonstrate compliance with the CO, NOx, and NMOC stack emission limitations specified in b)(1), including the control efficiency requirements of 40 CFR Part 60, Subpart WWW specified in b)(2)c and 40 CFR part 60, Subpart XXX in b)(2)d.
- c. The following test methods shall be employed to demonstrate compliance with the emission limitations:
  - for NOx, Methods 1 through 4 and 7 of 40 CFR Part 60, Appendix A;
  - for CO, Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A; and
  - for NMOC, Methods 1 through 4 and 25, 25C or Method 18, as appropriate, 40 CFR Part 60, Appendix A, and 60.754(d) and (e) of Subpart WWW.

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

- d. The tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Southwest Ohio Air Quality Agency.
  - e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Southwest Ohio Air Quality Agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Southwest Ohio Air Quality Agency refusal to accept the results of the emission test(s).
  - f. Personnel from the Southwest Ohio Air Quality Agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
  - g. A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Southwest Ohio Air Quality Agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Southwest Ohio Air Quality Agency.
- (5) Compliance with the operational restrictions in c)(1) and c)(2) shall be determined by the recordkeeping requirements specified in d)(1) and d)(2).
- g) **Miscellaneous Requirements**
- (1) Emissions from gas plant #1 and #2 (P001 and P002) include emissions from two thermal oxidizer (TOX) units and one off-spec gas flare. The off-spec gas flare is used only for destruction of off-spec processed gas and not unprocessed landfill gas. For purposes of compliance with 40 CFR 60 Subpart WWW and 40 CFR 60 Subpart XXX, only the thermal oxidizers are defined as "enclosed combustors" per 40 CFR 60.751 and 40 CFR 60.761.

**2. P002, LFG Plant #2**

**Operations, Property and/or Equipment Description:**

1,095 MMscf/year Landfill Gas Recovery Process; Gas Plant #2

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Emissions from P001 and P002, combined, shall not exceed the following:  NMOC emissions shall not exceed 8.50 pounds per hour and 34.65 TPY; CO emissions shall not exceed 14.75 pounds per hour and 40.96 TPY; PE emissions shall not exceed 4.49 pounds per hour and 11.94 TPY; PM <sub>10</sub> emissions shall not exceed 4.49 pounds per hour and 11.94 TPY; PM <sub>2.5</sub> emissions shall not exceed 4.49 pounds per hour and 11.94 TPY; NOx emissions shall not exceed 6.44 pounds per hour and 8.15 TPY; SO <sub>2</sub> emissions shall not exceed 3.42

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>pounds per hour and 7.11 TPY;</p> <p>Hydrogen chloride (HCl) emissions shall not exceed 25.62 TPY;</p> <p>Hydrogen fluoride (HF) emissions shall not exceed 3.28 TPY;</p> <p>Methane emissions shall not exceed 599 TPY.</p> <p>The annual emissions include the emissions from the off-spec gas combustor.</p> <p>See b)(2)g., c)(1) and c)(2)</p>
b.	OAC rule 3745-17-07(A)	<p>The limitation associated with this rule is less stringent than the visible emission limitation established in accordance with OAC rule 3745-31-05(A)(3).</p> <p>See b)(2)g.</p>
c.	<p>40 CFR Part 60, Subpart WWW or XXX  [40 CFR Parts 60.1-19 and 60.750-759 or 60.760-769]</p> <p><i>Standards of Performance for Municipal Solid Waste (MSW) Landfills</i></p> <p>[In accordance with 60.750, 60.751, and 60.752, this emissions unit is associated with a MSW landfill that commenced modification on or after May 30, 1991, with a design capacity greater than 2.5 megagrams and 2.5 million cubic meters.]</p> <p>After construction of the landfill expansion commences (Authorized by permit # P0124272 issued to RSL, Inc. (Facility ID 1431092049)) in accordance with 40 CFR Part 60.760(a) and 60.762(b), this facility will be associated with a MSW landfill that commenced modification after July 17, 2014 having a design capacity greater than 2.5 million MG</p>	<p>See b)(2)a., b)(2)b., b)(2)c., b)(2)d., b)(2)f., c)(4) and c)(5).</p>

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	and 2.5 million m <sup>3</sup> subject to the emissions limitations/control measures specified in 40 CFR Part 60, Subpart XXX upon NMOC emissions equaling or exceeding 34 MG/yr.]	
d.	40 CFR Part 63, Subpart AAAA [40 CFR 63.1930-1990]  <i>National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills</i>  [In accordance with 63.1935 and 63.1940, this emissions unit is associated with an existing affected MSW landfill.]	The permittee shall comply with the requirements of 40 CFR Part 60, Subpart WWW. [40 CFR 63.1955(a)(1)]  See b)(2)e. and c)(6).
e.	40 CFR 63.1-15 [40 CFR 63.1930-1990]	Table 1 to Subpart AAAA of Part 63 – Applicability of General Provisions to Subpart AAAA shows which parts of the General Provisions in 40 CFR 63.1-15 apply.

(2) Additional Terms and Conditions

- a. Until construction of the expansion authorized by permit # P0124272, issued to RSL Inc. (Facility ID 1431092049), is commenced and 40 CFR Part 63, Subpart AAAA is modified, the permittee shall comply with the applicable requirements in 40 CFR Part 60, Subparts A and WWW, including the following sections:

60.752(b)(2)(i)	Collection and control system design plan requirements
60.752(b)(2)(ii)	Collection and control system installation
60.752(b)(2)(iii)	Route all collected gas to a control system
60.752(b)(2)(iv)	Operation of the collection and control device(s) in accordance with 60.753, 60.755, and 60.756.
60.752(b)(2)(v)(A) through (C)	Provisions for capping or removal of collection and control system

- b. After construction of the expansion authorized by permit # P0124272, issued to RSL Inc. (Facility ID 1431092049), is commenced, the permittee shall comply with the applicable restrictions under 40 CFR Part 60, Subparts A and XXX, including the following sections:

60.762(b)(2)(i)	Collection and control system design plan requirements
60.762(b)(2)(ii)	Collection and control system installation

60.762(b)(2)(iii)	Route all collected gas to a control system
60.762(b)(2)(iv)	Operation of the collection and control device(s) in accordance with 60.753, 60.755, and 60.756.
60.762(b)(2)(v)(A) through (C)	Provisions for capping or removal of collection and control system

- c. Pursuant to 60.752(b)(2)(iii), the permittee shall route all the collected gas to a control system that complies with the requirements in either i., ii., or iii. below:
- i. An open flare designed and operated in accordance with 40 CFR 60.18 except as noted in 60.754(e);
  - ii. A control system designed and operated to reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control to either reduce NMOC by 98 weight-percent or reduce the outlet NMOC concentration to less than 20 parts per million (ppm) by volume, dry basis as hexane at 3 percent oxygen. The reduction efficiency or ppm by volume shall be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using test methods specified in 60.754(d);
    - (a) If a boiler or process heater is used as the control device, the landfill gas stream shall be introduced into the flame zone.
    - (b) The control device shall be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in 60.756.
  - iii. A treatment system that processes the collected gas for subsequent sale or use. All emissions from any atmospheric vent from the gas treatment system shall be subject to the requirements of 60.752(b)(2)(iii)(A) or (B).
- d. Pursuant to 60.762(b)(2)(iii), the permittee shall route all the collected gas to a control system that complies with the requirements in either i., ii., or iii. below:
- i. A non-enclosed flare designed and operated in accordance with 40 CFR 60.18 except as noted in 60.764(e);
  - ii. A control system designed and operated to reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control to either reduce NMOC by 98 weight-percent or reduce the outlet NMOC concentration to less than 20 parts per million (ppm) by volume, dry basis as hexane at 3 percent oxygen. The reduction efficiency or ppm by volume shall be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using test methods specified in 60.764(d). The performance test is not required for boilers and process heaters with design heat input capacities equal to or greater than 44 megawatts that burn landfill gas for compliance with this subpart;

- (a) If a boiler or process heater is used as the control device, the landfill gas stream shall be introduced into the flame zone.
- (b) The control device shall be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in 60.766.
- iii. A treatment system that processes the collected gas for subsequent sale or beneficial use such as fuel for combustion, production of vehicle fuel, production of high-Btu gas for pipeline injection, or use as a raw material in a chemical manufacturing process. Venting of treated landfill gas to the ambient air is not allowed. If the treated landfill gas cannot be routed for subsequent sale or beneficial use, then the treated landfill gas must be controlled according to the requirements of 60.762(b)(2)(iii)(A) or (B).
- iv. All emissions from an atmospheric vent from the gas treatment system are subject to the requirements of paragraph (b)(2)(iii)(A) or (B) of this section. For purposes of this subpart, atmospheric vents located on the condensate storage tank are not part of the treatment system and are exempt from the requirements of paragraph (b)(2)(iii)(A) or (B) of this section.
- e. The permittee shall comply with the applicable requirements under 40 CFR Part 63, Subpart AAAA, including the following sections:
 

63.1955(b)	Requirements for sources with collection and control system(s)
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- f. The equipment that constitutes the gas collection and control system shall be properly maintained and kept in good operating condition at all times.
- g. Visible particulate emissions from the stacks associated with emission unit P002 shall not exceed 10% opacity, as a 6-minute average.
- h. Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the visible particulate emission limitations, a properly designed and operated landfill gas collection system and a control system capable of reducing NMOC in the collected gas by 98% or an outlet concentration of 20 ppmv hexane at 3% oxygen, compliance with 40 CFR Part 60, Subpart WWW, 40 CFR Part 60, Subpart XXX and 40 CFR Part 63, Subpart AAAA.
- i. The hourly emission limitations are based upon the emissions unit's potential to emit. Therefore, no additional monitoring, record keeping or reporting requirements are required to demonstrate compliance with these emission limitations.
- j. The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 60 are also federally enforceable.



k. The application and enforcement of the provisions of the National Emission Standards for Hazardous Air Pollutants (NESHAP), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 61, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 61 are also federally enforceable.

c) Operational Restrictions

- (1) The maximum annual landfill gas throughput for emissions units P001-P004 combined shall not exceed 10,783,603,800 standard cubic feet (SCF) based upon a rolling 12-month summation.
- (2) The maximum annual gas throughput for the off-spec gas flare (serving Plants 1 and 2) shall not exceed 67.64 million standard cubic feet (SCF).
- (3) Whenever any enclosed combustor(s) are in operation, the average combustion temperature for any 3-hour block of time shall be no more than 82.4 degrees Fahrenheit (28 degrees Celsius) below the average temperature during the most recent test which demonstrated compliance with b)(2)b.
- (4) Until construction of the expansion authorized by permit # P0124272, issued to RSL Inc. (Facility ID 1431092049), is commenced and 40 CFR Part 63, Subpart AAAA is modified, the permittee shall comply with the applicable requirements in 40 CFR Part 60, Subparts A and WWW, including the following sections:

60.753(e) and (f)	Overall collection and control system operating and shutdown requirements
60.753(g)	Corrective action requirements
60.755(e)	Startup, shutdown, and malfunction provisions and time period limitations

- (5) After construction of the expansion authorized by permit # P0124272, issued to RSL Inc. (Facility ID 1431092049), is commenced, the permittee shall comply with the applicable restrictions under 40 CFR Part 60, Subparts A and XXX, including the following sections:

60.763(e) and (f)	Overall collection and control system operating and shutdown requirements
60.763(g)	Corrective action requirements
60.765(e)	Startup, shutdown, and malfunction provisions and time period limitations

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

63.1960	General and continuing compliance requirements, including requirements for written startup, shutdown, and malfunction (SSM) plan
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d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain monthly records of the following information:
  - a. the total landfill gas throughput for each month for emissions units P001-P004 combined; and
  - b. the rolling, 12-month summation of the landfill gas throughput for emissions units P001-P004 combined.
- (2) The permittee shall operate and maintain a continuous gas flow monitor and recorder which measures and records the total gas flow to the off-spec gas flare (serving Plants 1 and 2) when the emissions unit is in operation. The gas flow monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals. The permittee shall collect and record the total volume of gas sent to the off-spec gas flare, in million scf, on an annual basis.
- (3) Until construction of the expansion authorized by permit # P0124272, issued to RSL Inc. (Facility ID 1431092049), is commenced and 40 CFR Part 63, Subpart AAAA is modified, the permittee shall comply with the applicable monitoring and recordkeeping requirements in 40 CFR Part 60, Subparts A and WWW, including the following sections:

60.753(g)	Overall monitoring and corrective action requirements
60.756(b)(1)	Requirements for enclosed combustor continuous temperature monitoring device.
60.756(b)(2)	Requirements for enclosed combustor gas flow or bypass monitoring device.
60.758(b)	Record keeping requirements for control equipment
60.758(b)(2)	Record keeping requirements for temperature and NMOC percent reduction of enclosed combustion device(s).
60.758(c)	Record keeping requirements for equipment operating parameters
60.758(c)(1)	Record keeping requirements for combustion temperature exceedances.
60.758(c)(2)	Record keeping requirements for gas flow or bypass
60.758(c)(4)	Record keeping requirements for open flare operation without flame or flare pilot flame.
60.758(e)	Record keeping requirements for exceedances of operational standards in 60.753

- (4) After construction of the expansion authorized by permit # P0124272, issued to RSL Inc. (Facility ID 1431092049), is commenced, the permittee shall comply with the applicable monitoring and recordkeeping requirements in 40 CFR Part 60, Subparts A and XXX, including the following sections:

60.763(g)	Overall monitoring and corrective action requirements
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60.766(b)(1)	Requirements for enclosed combustor continuous temperature monitoring device.
60.766(b)(2)	Requirements for enclosed combustor gas flow or bypass monitoring device.
60.768(b)	Record keeping requirements for control equipment
60.768(b)(2)	Record keeping requirements for temperature and NMOC percent reduction of enclosed combustion device(s).
60.768(c)	Record keeping requirements for equipment operating parameters
60.768(c)(1)	Record keeping requirements for combustion temperature exceedances.
60.768(c)(2)	Record keeping requirements for gas flow or bypass
60.768(c)(4)	Record keeping requirements for open flare operation without flame or flare pilot flame.
60.768(e)	Record keeping requirements for exceedances of operational standards in 60.753
60.768(h)	Each owner or operator subject to the provisions of 40 CFR Part 60, Subpart XXX must keep for at least 5 years up-to-date, readily accessible records of all collection and control system monitoring data for parameters measured in 40 CFR 60.766(a)(1), (2) and (3), except as provided in 40 CFR Part 60.767(c)(2).
60.768(i)	Any records required to be maintained that are submitted electronically may be maintained in electronic format.

- (5) The permittee shall collect and record the following information for each day:
- a. all 3-hour blocks of time during which the average combustion temperature within any enclosed combustor, when the emissions unit was in operation, was more than 82.4 degrees Fahrenheit (28 degrees Celsius) below the average temperature during the most recent test which demonstrated compliance with b)(2)b.; and
  - b. a log of the downtime for the capture (collection) system, control device and monitoring equipment when the associated emissions unit was in operation.
- (6) The permittee shall comply with the applicable monitoring and record keeping requirements under 40 CFR Part 63, Subpart AAAA, including the following sections:

63.1975	Requirements for computation of 3-hour block averages, excluding listed events
63.1980(a)	Record keeping requirements as specified in 40 CFR Part 60, Subpart WWW
63.1980(b)	Record keeping requirements as specified in 40 CFR Part 60, Subpart A and Table 1 of Subpart AAAA, including SSM plans

- (7) The permittee shall maintain records which document the annual CO, PE, PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>x</sub>, SO<sub>2</sub>, HCl, HF and methane emissions for this emissions unit.

e) Reporting Requirements

- (1) Until construction of the expansion authorized by permit # P0124272, issued to RSL Inc. (Facility ID 1431092049), is commenced and 40 CFR Part 63, Subpart AAAA is modified, the permittee shall submit notifications and reports to the appropriate Ohio EPA District office as required pursuant to 40 CFR Part 60, Subparts A and WWW, per the following sections:

60.757(f)	Annual reporting requirements
60.757(g)	Initial performance test reporting requirements

- (2) After construction of the expansion authorized by permit # P0124272, issued to RSL Inc. (Facility ID 1431092049), is commenced, the permittee shall submit notifications and reports to the appropriate Ohio EPA District office as required pursuant to 40 CFR Part 60, Subparts A and XXX, per the following sections:

60.767(f)	Each owner or operator of a controlled landfill shall submit an equipment removal report 30 days prior to removal or cessation of operation of the control equipment. The equipment removal report shall contain all of the items in 40 CFR 60.767(f).
60.767(g)	Each owner or operator of a landfill seeking to comply with 40 CFR 60.762(b)(2) using an active collection system designed in accordance with 40 CFR 60.762(b)(2)(ii) shall submit annual reports of the recorded information in 40 CFR 60.767(g)(1) through (g)(7). The initial annual report shall be submitted within 180 days of installation and start-up of the collection and control system, and shall include the initial performance test report required under 40 CFR 60.8.

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

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

63.1965	Deviation definition and requirements
63.1980(a)	Reporting requirements as specified in 40 CFR Part 60, Subpart WWW; except that annual report described under 60.757(f) above must be submitted every 6 months
63.1980(b)	Reporting requirements as specified in 40 CFR Part 60, Subpart A and Table 1 of Subpart AAAAA, including SSM plan reports

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

- a. an identification of each 3-hour block of time during which the average combustion temperature within the enclosed combustor, when the emissions unit was in operation, was more than 82.4 degrees Fahrenheit (28 degrees Celsius) below the average temperature during the most recent test which demonstrated compliance with b)(2)b.;
- b. all periods when the gas stream is diverted from the control device or recovery system through a bypass line or the indication of bypass flow or any record which indicates that the bypass line valve was not maintained in the closed position;
- c. the description and duration of all periods when the recovery and treatment system was not operating for a period exceeding 1 hour and the length of time the recovery and treatment system was not operating.
- d. all exceedances of the rolling, 12-month limitation of the landfill gas throughput for emissions units P001-P004, combined.

Should a deviation occur, the deviation report shall include details sufficient to determine compliance with the time line provisions established under 40 CFR Part 60.755. The quarterly reporting requirement above may be more stringent than annual reporting requirements specified in 40 CFR Part 60, Subpart WWW or 40 CFR Part 60, Subpart XXX, and semi-annual reporting requirements specified in 40 CFR Part 63, Subpart AAAA. The permittee shall comply with all applicable reporting requirements, including any less stringent requirements.

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

- (5) The permittee shall submit annual reports that specify the total amount of gas throughput in the off-spec gas flare (for Plants 1 and 2), in million scf. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific data for this emissions unit in the annual Fee Emission Report.
- (6) The permittee shall submit annual reports that specify the total NMOC, CO, PE, PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>x</sub>, SO<sub>2</sub>, HCl, HF, methane emissions from this emissions unit for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific data for this emissions unit in the annual Fee Emission Report.

f) Testing Requirements

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

a. Emission Limitation:

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

Applicable Compliance Method:

Compliance shall be demonstrated by compliance with the monitoring and testing requirements of 40 CFR Part 60, Subpart WWW and Subpart XXX as specified in d)(3) and d(4) and f)(2), f)(3), and f)(4) below.

b. Emission Limitations:

Visible particulate emissions from the stacks associated with emission unit P002 shall not exceed 10% opacity, as a 6-minute average.

Applicable Compliance Method:

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

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

c. Emission Limitations:

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

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

CO emissions shall not exceed 14.75 pounds per hour and 40.96 TPY;

PE emissions shall not exceed 4.49 pounds per hour and 11.94 TPY;

PM<sub>10</sub> emissions shall not exceed 4.49 pounds per hour and 11.94 TPY;

PM<sub>2.5</sub> emissions shall not exceed 4.49 pounds per hour and 11.94 TPY;

NO<sub>x</sub> emissions shall not exceed 6.44 pounds per hour and 8.15 TPY;

SO<sub>2</sub> emissions shall not exceed 3.42 pounds per hour and 7.11 TPY;

Methane emissions shall not exceed 599 TPY;

HCl emissions shall not exceed 25.62 TPY; and

HF emissions shall not exceed 3.28 TPY.

Applicable Compliance Method:

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

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

The annual emission limitations are based upon Plant 1 and Plant 2 operating 8,760 hours per year and include compliance with the annual gas flow limitation to the off-spec gas flare, which is determined by the record keeping requirements

in d)(1). Therefore, provided that the permittee complies with the hourly emission limitations and the gas limitation to the off-spec gas flare, compliance with the annual emission limitations will also be demonstrated.

- (2) Until construction of the expansion authorized by permit # P0124272, issued to RSL Inc. (Facility ID 1431092049), is commenced and 40 CFR Part 63, Subpart AAAA is modified, the permittee shall comply with the applicable testing requirements in 40 CFR Part 60, Subparts A and WWW, including the following sections:

60.754(b)	NMOC emission rate calculation for equipment removal
60.754(c)	NMOC emission rate determination for PSD
60.752(b)(2)(iii)(B) and 60.754(d)	Performance test and test method requirements for enclosed combustor(s)

- (3) After construction of the expansion authorized by permit # P0124272, issued to RSL Inc. (Facility ID 1431092049), is commenced, the permittee shall comply with the applicable testing requirements under 40 CFR Part 60, Subparts A and XXX, including the following sections:

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

- (4) Compliance with the operational restrictions in c)(1) and c)(2) shall be determined by the recordkeeping requirements specified in d)(1) and d)(2).

g) **Miscellaneous Requirements**

- (1) Emissions from gas plant #1 and #2 (P001 and P002) include emissions from two thermal oxidizer (TOX) units and one off-spec gas flare. The off-spec gas flare is used only for destruction of off-spec processed gas and not unprocessed landfill gas. For purposes of compliance with 40 CFR 60 Subpart WWW and 40 CFR 60 Subpart XXX, only the thermal oxidizers are defined as "enclosed combustors" per 40 CFR 60.751 and 40 CFR 60.761.

**3. P003, LFG Plant #3**

**Operations, Property and/or Equipment Description:**

6756 MMscf/year Landfill Gas Recovery Process; Gas Plant #3

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Hourly Emissions from P003 shall not exceed the following including off-spec gas combustion (See below for emission limits when burning raw landfill gas):  NMOC emissions shall not exceed 3.83 lbs/hr;  CO emissions shall not exceed 48.18 lbs/hr;  PE shall not exceed 2.75 lbs/hr;  PM <sub>10</sub> emissions shall not exceed 2.75 lbs/hr;  PM <sub>2.5</sub> emissions shall not exceed 2.75 lbs/hr;

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>NOx emissions shall not exceed 26.0 lbs/hr;</p> <p>SO<sub>2</sub> emissions shall not exceed 6.7 lbs/hr;</p> <p>Hydrogen chloride (HCl) emissions shall not exceed 10.3 lbs/hr;</p> <p>Hydrogen fluoride (HF) emissions shall not exceed 1.7 lbs/hr;</p> <p>Hourly emissions from the enclosed combustor/flare #3 when burning raw landfill gas shall not exceed the following:</p> <p>CO emissions shall not exceed 95.4 lbs/hr;</p> <p>PE shall not exceed 7.3 lbs/hr;</p> <p>PM<sub>10</sub> emissions shall not exceed 7.3 lbs/hr;</p> <p>PM<sub>2.5</sub> emissions shall not exceed 7.3 lbs/hr.</p> <p>Annual Emissions from P003 and P004, combined, shall not exceed the following:</p> <p>NMOC emissions shall not exceed 16.79 TPY;</p> <p>CO emissions shall not exceed 417.91 TPY;*</p> <p>PE shall not exceed 31.87 TPY;</p> <p>PM<sub>10</sub> emissions shall not exceed 31.87 TPY;*</p> <p>PM<sub>2.5</sub> emissions shall not exceed 31.87 TPY;</p> <p>NOx emissions shall not exceed 113.83 TPY;*</p> <p>SO<sub>2</sub> emissions shall not exceed 29.3 TPY;</p>

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>Hydrogen chloride (HCl) emissions shall not exceed 45.18 TPY;</p> <p>Hydrogen fluoride (HF) emissions shall not exceed 7.28 TPY;</p> <p>Fluorotrichloromethane (CFC-11) emissions shall not exceed 0.02 TPY;*</p> <p>Dichlorodifluoromethane (CFC-12) emissions shall not exceed 0.37 TPY;*</p> <p>and</p> <p>Methane emissions shall not exceed 1563 TPY.</p>
b.	<p>OAC rules 3745-31-11 through 3745-31-20</p> <p><i>Prevention of Significant Deterioration (PSD)</i></p>	<p>The pollutant emission limitations asterisked above are subject to the requirements of these rules.</p>
c.	<p>OAC rule 3745-17-07(A)</p>	<p>Exempt. See b)(2)g.</p>
d.	<p>40 CFR Part 60, Subpart WWW or XXX  [40 CFR Parts 60.1-19 and 60.750-759 or 60.760-769]</p> <p><i>Standards of Performance for Municipal Solid Waste (MSW) Landfills</i></p> <p>[In accordance with 60.750, 60.751, and 60.752, this emissions unit is associated with a MSW landfill that commenced modification on or after May 30, 1991, with a design capacity greater than 2.5 megagrams and 2.5 million cubic meters.]</p> <p>After construction of the landfill expansion commences (Authorized by permit # P0124272 issued to RSL, Inc. (Facility ID 1431092049)) in accordance with 40 CFR Part 60.760(a) and 60.762(b), this facility will be associated with a MSW landfill that commenced modification after July 17, 2014 having a design capacity greater than 2.5 million MG</p>	<p>See b)(2)a., b)(2)b., b)(2)c., b)(2)d., b)(2)f., c)(4) and c)(5).</p>

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	and 2.5 million m <sup>3</sup> subject to the emissions limitations/control measures specified in 40 CFR Part 60, Subpart XXX upon NMOC emissions equaling or exceeding 34 MG/yr.]	
e.	40 CFR Part 63, Subpart AAAA [40 CFR 63.1930-1990]  <i>National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills</i>  [In accordance with 63.1935 and 63.1940, this emissions unit is associated with an existing affected MSW landfill.]	The permittee shall comply with the requirements of 40 CFR Part 60, Subpart WWW. [40 CFR 63.1955(a)(1)]  See b)(2)e. and c)(6).
f.	40 CFR 63.1-15 [40 CFR 63.1930-1990]	Table 1 to Subpart AAAA of Part 63 – Applicability of General Provisions to Subpart AAAA shows which parts of the General Provisions in 40 CFR 63.1-15 apply.

(2) Additional Terms and Conditions

- a. Until construction of the expansion authorized by permit # P0124272, issued to RSL Inc. (Facility ID 1431092049), is commenced and 40 CFR Part 63, Subpart AAAA is modified, the permittee shall comply with the applicable requirements in 40 CFR Part 60, Subparts A and WWW, including the following sections:

60.752(b)(2)(i)	Collection and control system design plan requirements
60.752(b)(2)(ii)	Collection and control system installation
60.752(b)(2)(iii)	Route all collected gas to a control system
60.752(b)(2)(iv)	Operation of the collection and control device(s) in accordance with 60.753, 60.755, and 60.756.
60.752(b)(2)(v)(A) through (C)	Provisions for capping or removal of collection and control system

- b. After construction of the expansion authorized by permit # P0124272, issued to RSL Inc. (Facility ID 1431092049), is commenced, the permittee shall comply with the applicable restrictions under 40 CFR Part 60, Subparts A and XXX, including the following sections:

60.762(b)(2)(i)	Collection and control system design plan
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	requirements
60.762(b)(2)(ii)	Collection and control system installation
60.762(b)(2)(iii)	Route all collected gas to a control system
60.762(b)(2)(iv)	Operation of the collection and control device(s) in accordance with 60.753, 60.755, and 60.756.
60.762(b)(2)(v)(A) through (C)	Provisions for capping or removal of collection and control system

- c. Pursuant to 60.752(b)(2)(iii), the permittee shall route all the collected gas to a control system that complies with the requirements in either i., ii., or iii. below:
- i. An open flare designed and operated in accordance with 40 CFR 60.18 except as noted in 60.754(e);
  - ii. A control system designed and operated to reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control to either reduce NMOC by 98 weight-percent or reduce the outlet NMOC concentration to less than 20 parts per million (ppm) by volume, dry basis as hexane at 3 percent oxygen. The reduction efficiency or ppm by volume shall be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using test methods specified in 60.754(d);
    - (a) If a boiler or process heater is used as the control device, the landfill gas stream shall be introduced into the flame zone.
    - (b) The control device shall be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in 60.756.
  - iii. A treatment system that processes the collected gas for subsequent sale or use. All emissions from any atmospheric vent from the gas treatment system shall be subject to the requirements of 60.752(b)(2)(iii)(A) or (B).
- d. Pursuant to 60.762(b)(2)(iii), the permittee shall route all the collected gas to a control system that complies with the requirements in either i., ii., or iii. below:
- i. A non-enclosed flare designed and operated in accordance with 40 CFR 60.18 except as noted in 60.764(e);
  - ii. A control system designed and operated to reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control to either reduce NMOC by 98 weight-percent or reduce the outlet NMOC concentration to less than 20 parts per million (ppm) by volume, dry basis as hexane at 3 percent oxygen. The reduction efficiency or ppm by volume shall be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using test methods specified in 60.764(d). The performance test is not required for boilers and process heaters with

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

- (a) If a boiler or process heater is used as the control device, the landfill gas stream shall be introduced into the flame zone.
  - (b) The control device shall be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in 60.766.
- iii. A treatment system that processes the collected gas for subsequent sale or beneficial use such as fuel for combustion, production of vehicle fuel, production of high-Btu gas for pipeline injection, or use as a raw material in a chemical manufacturing process. Venting of treated landfill gas to the ambient air is not allowed. If the treated landfill gas cannot be routed for subsequent sale or beneficial use, then the treated landfill gas must be controlled according to the requirements of 60.762(b)(2)(iii)(A) or (B).
  - iv. All emissions from an atmospheric vent from the gas treatment system are subject to the requirements of paragraph (b)(2)(iii)(A) or (B) of this section. For purposes of this subpart, atmospheric vents located on the condensate storage tank are not part of the treatment system and are exempt from the requirements of paragraph (b)(2)(iii)(A) or (B) of this section.
- e. The permittee shall comply with the applicable requirements under 40 CFR Part 63, Subpart AAAAA, including the following sections:

63.1955(b)	Requirements for sources with collection and control system(s)
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- f. The equipment that constitutes the gas collection and control system shall be properly maintained and kept in good operating condition at all times.
- g. Visible particulate emissions from the stacks associated with this emissions unit shall not exceed 20% opacity, as a 6-minute average.
- h. Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the visible particulate emission limitations, a properly designed and operated landfill gas collection system and a control system capable of reducing NMOC in the collected gas by 98% or an outlet concentration of 20 ppmv hexane at 3% oxygen, compliance with 40 CFR Part 60, Subpart WWW, 40 CFR Part 60, Subpart XXX, 40 CFR Part 61 Subpart AAAAA.
- i. The hourly emission limitations are based upon the emissions unit's potential to emit. Therefore, no additional monitoring, record keeping or reporting requirements are required to demonstrate compliance with these emission limitations.



- j. The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 60 are also federally enforceable.
- k. The application and enforcement of the provisions of the National Emission Standards for Hazardous Air Pollutants (NESHAP), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 61, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 61 are also federally enforceable.

c) Operational Restrictions

- (1) The maximum annual landfill gas throughput for emissions units P001-P004 combined shall not exceed 10,783,603,800 standard cubic feet (SCF) based upon a rolling 12-month summation.
- (2) Whenever any enclosed combustor(s) are in operation, the average combustion temperature for any 3-hour block of time shall be no more than 82.4 degrees Fahrenheit (28 degrees Celsius) below the average temperature during the most recent test which demonstrated compliance with b)(2)b.
- (3) Until construction of the expansion authorized by permit # P0124272, issued to RSL Inc. (Facility ID 1431092049), is commenced and 40 CFR Part 63, Subpart AAAA is modified, the permittee shall comply with the applicable requirements in 40 CFR Part 60, Subparts A and WWW, including the following sections:

60.753(e) and (f)	Overall collection and control system operating and shutdown requirements
60.753(g)	Corrective action requirements
60.755(e)	Startup, shutdown, and malfunction provisions and time period limitations

- (4) After construction of the expansion authorized by permit # P0124272, issued to RSL Inc. (Facility ID 1431092049), is commenced, the permittee shall comply with the applicable restrictions under 40 CFR Part 60, Subparts A and XXX, including the following sections:

60.763(e) and (f)	Overall collection and control system operating and shutdown requirements
60.763(g)	Corrective action requirements
60.765(e)	Startup, shutdown, and malfunction provisions and time period limitations

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

63.1960	General and continuing compliance requirements, including requirements for written startup, shutdown, and malfunction
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	(SSM) plan
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d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain monthly records of the following information:
  - a. the total landfill gas throughput for each month for emissions units P001-P004 combined; and
  - b. the rolling, 12-month summation of the landfill gas throughput for emissions units P001-P004 combined.
- (2) Until construction of the expansion authorized by permit # P0124272, issued to RSL Inc. (Facility ID 1431092049), is commenced and 40 CFR Part 63, Subpart AAAA is modified, the permittee shall comply with the applicable monitoring and recordkeeping requirements in 40 CFR Part 60, Subparts A and WWW, including the following sections:

60.753(g)	Overall monitoring and corrective action requirements
60.756(b)(1)	Requirements for enclosed combustor continuous temperature monitoring device.
60.756(b)(2)	Requirements for enclosed combustor gas flow or bypass monitoring device.
60.758(b)	Record keeping requirements for control equipment
60.758(b)(2)	Record keeping requirements for temperature and NMOC percent reduction of enclosed combustion device(s).
60.758(c)	Record keeping requirements for equipment operating parameters
60.758(c)(1)	Record keeping requirements for combustion temperature exceedances.
60.758(c)(2)	Record keeping requirements for gas flow or bypass
60.758(e)	Record keeping requirements for exceedances of operational standards in 60.753

- (3) After construction of the expansion authorized by permit # P0124272, issued to RSL Inc. (Facility ID 1431092049), is commenced, the permittee shall comply with the applicable monitoring and recordkeeping requirements in 40 CFR Part 60, Subparts A and XXX, including the following sections:

60.763(g)	Overall monitoring and corrective action requirements
60.766(b)(1)	Requirements for enclosed combustor continuous temperature monitoring device.
60.766(b)(2)	Requirements for enclosed combustor gas flow or bypass monitoring device.
60.768(b)	Record keeping requirements for control equipment
60.768(b)(2)	Record keeping requirements for

	temperature and NMOC percent reduction of enclosed combustion device(s).
60.768(c)	Record keeping requirements for equipment operating parameters
60.768(c)(1)	Record keeping requirements for combustion temperature exceedances.
60.768(c)(2)	Record keeping requirements for gas flow or bypass
60.768(e)	Record keeping requirements for exceedances of operational standards in 60.753
60.768(h)	Each owner or operator subject to the provisions of 40 CFR Part 60, Subpart XXX must keep for at least 5 years up-to-date, readily accessible records of all collection and control system monitoring data for parameters measured in 40 CFR 60.766(a)(1), (2) and (3), except as provided in 40 CFR Part 60.767(c)(2).
60.768(i)	Any records required to be maintained that are submitted electronically may be maintained in electronic format.

- (4) The permittee shall collect and record the following information for each day:
- a. all 3-hour blocks of time during which the average combustion temperature within any enclosed combustor, when the emissions unit was in operation, was more than 82.4 degrees Fahrenheit (28 degrees Celsius) below the average temperature during the most recent test which demonstrated compliance with b)(2)b.; and
  - b. a log of the downtime for the capture (collection) system, control device and monitoring equipment when the associated emissions unit was in operation.
- (5) The permittee shall comply with the applicable monitoring and record keeping requirements under 40 CFR Part 63, Subpart AAAA, including the following sections:

63.1975	Requirements for computation of 3-hour block averages, excluding listed events
63.1980(a)	Record keeping requirements as specified in 40 CFR Part 60, Subpart WWW
63.1980(b)	Record keeping requirements as specified in 40 CFR Part 60, Subpart A and Table 1 of Subpart AAAA, including SSM plans

- (6) The permittee shall maintain records which document the annual CO, PE, PM<sub>10</sub>, PM<sub>2.5</sub>, NOx, SO<sub>2</sub>, HCl, HF and methane emissions for this emissions unit.

e) Reporting Requirements

- (1) Until construction of the expansion authorized by permit # P0124272, issued to RSL Inc. (Facility ID 1431092049), is commenced and 40 CFR Part 63, Subpart AAAA is modified, the permittee shall submit notifications and reports to the appropriate Ohio EPA District office as required pursuant to 40 CFR Part 60, Subparts A and WWW, per the following sections:

60.757(c)	Collection and control system design plan submission requirements
60.757(f)	Annual reporting requirements
60.757(g)	Initial performance test reporting requirements

- (2) After construction of the expansion authorized by permit # P0124272, issued to RSL Inc. (Facility ID 1431092049), is commenced, the permittee shall submit notifications and reports to the appropriate Ohio EPA District office as required pursuant to 40 CFR Part 60, Subparts A and XXX, per the following sections:

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

	60.767(h) with the initial performance test report required under 40 CFR 60.8.
60.767(i)	The owner or operator must submit reports electronically according to 40 CFR 60.767(i)(1) and (i)(2).
60.767(j)	The owner or operator must submit corrective actions and corresponding timelines according to 40 CFR 60.767(j)(1) and (j)(2).

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

63.1965	Deviation definition and requirements
63.1980(a)	Reporting requirements as specified in 40 CFR Part 60, Subpart WWW; except that annual report described under 60.757(f) above must be submitted every 6 months
63.1980(b)	Reporting requirements as specified in 40 CFR Part 60, Subpart A and Table 1 of Subpart AAAAA, including SSM plan reports

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

- a. an identification of each 3-hour block of time during which the average combustion temperature within the enclosed combustor, when the emissions unit was in operation, was more than 82.4 degrees Fahrenheit (28 degrees Celsius) below the average temperature during the most recent test which demonstrated compliance with b)(2)b.;
- b. all periods when the gas stream is diverted from the control device or recovery system through a bypass line or the indication of bypass flow or any record which indicates that the bypass line valve was not maintained in the closed position;
- c. the description and duration of all periods when the recovery and treatment system was not operating for a period exceeding 1 hour and the length of time the recovery and treatment system was not operating.
- d. all exceedances of the rolling, 12-month limitation of the landfill gas throughput for emissions units P001-P004, combined.

Should a deviation occur, the deviation report shall include details sufficient to determine compliance with the time line provisions established under 40 CFR Part 60.755. The quarterly reporting requirement above may be more stringent than annual reporting requirements specified in 40 CFR Part 60, Subpart WWW or 40 CFR Part 60, Subpart

XXX, and semi-annual reporting requirements specified in 40 CFR Part 63, Subpart AAAAA. The permittee shall comply with all applicable reporting requirements, including any less stringent requirements.

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

- (5) The permittee shall submit annual reports that specify the total NMOC, CO, PE, PM<sub>10</sub>, NO<sub>x</sub>, SO<sub>2</sub>, HCl, HF, methane emissions from this emissions unit for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific data for this emissions unit in the annual Fee Emission Report.

f) Testing Requirements

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

- a. Emission Limitation:

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

Applicable Compliance Method:

Compliance shall be demonstrated by compliance with the monitoring and testing requirements of 40 CFR Part 60, Subpart WWW and Subpart XXX as specified in d)(2) and d(3) and f)(2), f)(3), and f)(4) below.

- b. Emission Limitations:

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

Applicable Compliance Method:

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

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

- c. Emission Limitations:

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

NMOC emissions shall not exceed 3.83 pounds per hour;

CO emissions shall not exceed 48.18 pounds per hour;

PE emissions shall not exceed 2.75 pounds per hour;

PM<sub>10</sub> emissions shall not exceed 2.75 pounds per hour;

PM<sub>2.5</sub> emissions shall not exceed 2.75 pounds per hour;

NO<sub>x</sub> emissions shall not exceed 26.0 pounds per hour;

SO<sub>2</sub> emissions shall not exceed 6.7 pounds per hour;

HCl emissions shall not exceed 10.3 lbs/hr;

HF emissions shall not exceed 1.7 lbs/hr;

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

CO emissions shall not exceed 95.4 pounds per hour;

PE emissions shall not exceed 7.3 pounds per hour;

PM<sub>10</sub> emissions shall not exceed 7.3 pounds per hour;

PM<sub>2.5</sub> emissions shall not exceed 7.3 pounds per hour;

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

NMOC emissions shall not exceed 16.79 TPY;

CO emissions shall not exceed 417.91 TPY;

PE emissions shall not exceed 31.87 TPY;

PM<sub>10</sub> emissions shall not exceed 31.87 TPY;

PM<sub>2.5</sub> emissions shall not exceed 31.87 TPY;

NO<sub>x</sub> emissions shall not exceed 113.83 TPY;

SO<sub>2</sub> emissions shall not exceed 29.3 TPY;

HCl emissions shall not exceed 45.18 TPY;

HF emissions shall not exceed 7.28 TPY;

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

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

Methane emissions shall not exceed 1563 TPY.

Applicable Compliance Method:

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

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

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

- (2) Until construction of the expansion authorized by permit # P0124272, issued to RSL Inc. (Facility ID 1431092049), is commenced and 40 CFR Part 63, Subpart AAAA is modified, the permittee shall comply with the applicable testing requirements in 40 CFR Part 60, Subparts A and WWW, including the following sections:

60.754(b)	NMOC emission rate calculation for equipment removal
60.754(c)	NMOC emission rate determination for PSD
60.752(b)(2)(iii)(B) and 60.754(d)	Performance test and test method requirements for enclosed combustor(s)

- (3) After construction of the expansion authorized by permit # P0124272, issued to RSL Inc. (Facility ID 1431092049), is commenced, the permittee shall comply with the applicable testing requirements under 40 CFR Part 60, Subparts A and XXX, including the following sections:

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

- (4) Compliance with the operational restrictions in c)(1) shall be determined by the recordkeeping requirements specified in d)(1).

g) Miscellaneous Requirements

- (1) This emission unit involves the use of a gas recovery plants (Plant 3) with thermal oxidizer (TOX) unit and one enclosed flare off-spec gas combustor shared. The Gas Recovery Plant results in LFG recovery with the use of a thermal oxidizer for control of exhaust streams from the various LFG refining stages and the use of an off-spec gas

combustor for typically discharging off-spec gas on an intermittent basis. The off-spec gas combustor is only used for destruction of raw LFG in the event of the shutdown of the gas recovery plant, operational considerations, or poor gas quality (off-spec processed gas). When an enclosed flare off-spec gas combustor is only used for the destruction of raw LFG, this operating scenario constitutes the NSPS Enclosed Combustors Option. For purposes of compliance with 40 CFR 60 Subpart WWW and 40 CFR Subpart XXX, the thermal oxidizer and the off-spec gas combustor are defined as “enclosed combustors” per 40 CFR 60.751 and 40 CFR 60.761.

**4. P004, LFG Collection System**

**Operations, Property and/or Equipment Description:**

Landfill flare system

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Hourly Emissions from P004 shall not exceed the following:  NMOC emissions shall not exceed 3.83 lbs/hr;  CO emissions shall not exceed 123.44 lbs/hr;  PE shall not exceed 7.3 lbs/hr;  PM <sub>10</sub> emissions shall not exceed 7.3 lbs/hr;  PM <sub>2.5</sub> emissions shall not exceed 7.3 lbs/hr;  NOx emissions shall not exceed 26.0 lbs/hr;

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>SO<sub>2</sub> emissions shall not exceed 6.7 lbs/hr;</p> <p>Hydrogen chloride (HCl) emissions shall not exceed 10.3 lbs/hr;</p> <p>Hydrogen fluoride (HF) emissions shall not exceed 1.7 lbs/hr;</p> <p>Annual Emissions from P003 and P004, combined, shall not exceed the following:</p> <p>NMOC emissions shall not exceed 16.79 TPY;</p> <p>CO emissions shall not exceed 417.91 TPY;*</p> <p>PE shall not exceed 31.87 TPY;</p> <p>PM<sub>10</sub> emissions shall not exceed 31.87 TPY;*</p> <p>PM<sub>2.5</sub> emissions shall not exceed 31.87 TPY;</p> <p>NO<sub>x</sub> emissions shall not exceed 113.83 TPY;*</p> <p>SO<sub>2</sub> emissions shall not exceed 29.3 TPY;</p> <p>Hydrogen chloride (HCl) emissions shall not exceed 45.18 TPY;</p> <p>Hydrogen fluoride (HF) emissions shall not exceed 7.28 TPY;</p> <p>Fluorotrichloromethane (CFC-11) emissions shall not exceed 0.02 TPY;*</p> <p>Dichlorodifluoromethane (CFC-12) emissions shall not exceed 0.37 TPY;*</p> <p>and</p> <p>Methane emissions shall not exceed 1563 TPY.</p>
b.	OAC rules 3745-31-11 through 3745-31-20	The pollutant emission limitations asterisked above are subject to the requirements of these rules.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	<i>Prevention of Significant Deterioration (PSD)</i>	
c.	OAC rule 3745-17-07(A)	The limitation associated with this rule is less stringent than the visible emission limitation established in accordance with 40 CFR 60.18.  See b)(2)g.
d.	40 CFR Part 60, Subpart WWW or XXX [40 CFR Parts 60.1-19 and 60.750-759 or 60.760-769]  <i>Standards of Performance for Municipal Solid Waste (MSW) Landfills</i>  [In accordance with 60.750, 60.751, and 60.752, this emissions unit is associated with a MSW landfill that commenced modification on or after May 30, 1991, with a design capacity greater than 2.5 megagrams and 2.5 million cubic meters.]  After construction of the landfill expansion commences (Authorized by permit # P0124272 issued to RSL, Inc. (Facility ID 1431092049)) in accordance with 40 CFR Part 60.760(a) and 60.762(b), this facility will be associated with a MSW landfill that commenced modification after July 17, 2014 having a design capacity greater than 2.5 million MG and 2.5 million m <sup>3</sup> subject to the emissions limitations/control measures specified in 40 CFR Part 60, Subpart XXX upon NMOC emissions equaling or exceeding 34 MG/yr.]	See b)(2)a., b)(2)b., b)(2)c., b)(2)d., b)(2)f., c)(4) and c)(5).
e.	40 CFR Part 63, Subpart AAAA [40 CFR 63.1930-1990]  <i>National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills</i>	The permittee shall comply with the requirements of 40 CFR Part 60, Subpart WWW. [40 CFR 63.1955(a)(1)]  See b)(2)e. and c)(6).

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	[In accordance with 63.1935 and 63.1940, this emissions unit is associated with an existing affected MSW landfill.]	
f.	40 CFR 63.1-15 [40 CFR 63.1930-1990]	Table 1 to Subpart AAAA of Part 63 – Applicability of General Provisions to Subpart AAAA shows which parts of the General Provisions in 40 CFR 63.1-15 apply.

(2) Additional Terms and Conditions

- a. Until construction of the expansion authorized by permit # P0124272, issued to RSL Inc. (Facility ID 1431092049), is commenced and 40 CFR Part 63, Subpart AAAA is modified, the permittee shall comply with the applicable requirements in 40 CFR Part 60, Subparts A and WWW, including the following sections:

60.752(b)(2)(i)	Collection and control system design plan requirements
60.752(b)(2)(ii)	Collection and control system installation
60.752(b)(2)(iii)	Route all collected gas to a control
60.752(b)(2)(iv)	Operation of the collection and control device(s) in accordance with 60.753, 60.755, and 60.756.
60.752(b)(2)(v)(A) through (C)	Provisions for capping or removal of collection and control system

- b. After construction of the expansion authorized by permit # P0124272, issued to RSL Inc. (Facility ID 1431092049), is commenced, the permittee shall comply with the applicable restrictions under 40 CFR Part 60, Subparts A and XXX, including the following sections:

60.762(b)(2)(i)	Collection and control system design plan requirements
60.762(b)(2)(ii)	Collection and control system installation
60.762(b)(2)(iii)	Route all collected gas to a control system
60.762(b)(2)(iv)	Operation of the collection and control device(s) in accordance with 60.753, 60.755, and 60.756.
60.762(b)(2)(v)(A) through (C)	Provisions for capping or removal of collection and control system

- c. Pursuant to 60.752(b)(2)(iii), the permittee shall route all the collected gas to a control system that complies with the requirements in either i., ii., or iii. below:

- i. An open flare designed and operated in accordance with 40 CFR 60.18 except as noted in 60.754(e);

- ii. A control system designed and operated to reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control to either reduce NMOC by 98 weight-percent or reduce the outlet NMOC concentration to less than 20 parts per million (ppm) by volume, dry basis as hexane at 3 percent oxygen. The reduction efficiency or ppm by volume shall be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using test methods specified in 60.754(d);
  - (a) If a boiler or process heater is used as the control device, the landfill gas stream shall be introduced into the flame zone.
  - (b) The control device shall be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in 60.756.
- iii. A treatment system that processes the collected gas for subsequent sale or use. All emissions from any atmospheric vent from the gas treatment system shall be subject to the requirements of 60.752(b)(2)(iii)(A) or (B).
- d. Pursuant to 60.762(b)(2)(iii), the permittee shall route all the collected gas to a control system that complies with the requirements in either i., ii., or iii. below:
  - i. A non-enclosed flare designed and operated in accordance with 40 CFR 60.18 except as noted in 60.764(e);
  - ii. A control system designed and operated to reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control to either reduce NMOC by 98 weight-percent or reduce the outlet NMOC concentration to less than 20 parts per million (ppm) by volume, dry basis as hexane at 3 percent oxygen. The reduction efficiency or ppm by volume shall be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using test methods specified in 60.764(d). The performance test is not required for boilers and process heaters with design heat input capacities equal to or greater than 44 megawatts that burn landfill gas for compliance with this subpart;
    - (a) If a boiler or process heater is used as the control device, the landfill gas stream shall be introduced into the flame zone.
    - (b) The control device shall be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in 60.766.
  - iii. A treatment system that processes the collected gas for subsequent sale or beneficial use such as fuel for combustion, production of vehicle fuel, production of high-Btu gas for pipeline injection, or use as a raw material in a chemical manufacturing process. Venting of treated landfill gas to the ambient air is not allowed. If the treated landfill gas cannot be routed



for subsequent sale or beneficial use, then the treated landfill gas must be controlled according to the requirements of 60.762(b)(2)(iii)(A) or (B).

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

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

63.1955(b)	Requirements for sources with collection and control system(s)
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f. The equipment that constitutes the gas collection and control system shall be properly maintained and kept in good operating condition at all times.

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

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

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

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

k. The application and enforcement of the provisions of the National Emission Standards for Hazardous Air Pollutants (NESHAP), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 61, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 61 are also federally enforceable.

c) Operational Restrictions

(1) The maximum annual landfill gas throughput for emissions units P001-P004 combined shall not exceed 10,783,603,800 standard cubic feet (SCF) based upon a rolling 12-month summation.

- (2) Whenever any enclosed combustor(s) are in operation, the average combustion temperature for any 3-hour block of time shall be no more than 82.4 degrees Fahrenheit (28 degrees Celsius) below the average temperature during the most recent test which demonstrated compliance with b)(2)b.
- (3) Until construction of the expansion authorized by permit # P0124272, issued to RSL Inc. (Facility ID 1431092049), is commenced and 40 CFR Part 63, Subpart AAAA is modified, the permittee shall comply with the applicable requirements in 40 CFR Part 60, Subparts A and WWW, including the following sections:

60.752(b)(2)(iii)(A) and 60.18(c)(1) – (6), 60.18(d) and (e)	Flare specifications, design, and operating requirements
60.753(e) and (f)	Overall collection and control system operating and shutdown requirements
60.753(g)	Corrective action requirements
60.755(e)	Startup, shutdown, and malfunction provisions and time period limitations

- (4) After construction of the expansion authorized by permit # P0124272, issued to RSL Inc. (Facility ID 1431092049), is commenced, the permittee shall comply with the applicable restrictions under 40 CFR Part 60, Subparts A and XXX, including the following sections:

60.762(b)(2)(iii)(A) and 60.18(c)(1) – (6), 60.18(d) and (e)	Flare specifications, design, and operating requirements
60.763(e) and (f)	Overall collection and control system operating and shutdown requirements
60.763(g)	Corrective action requirements
60.765(e)	Startup, shutdown, and malfunction provisions and time period limitations

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

63.1960	General and continuing compliance requirements, including requirements for written startup, shutdown, and malfunction (SSM) plan
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d) **Monitoring and/or Recordkeeping Requirements**

- (1) The permittee shall maintain monthly records of the following information:
  - a. the total landfill gas throughput for each month for emissions units P001-P004 combined; and
  - b. the rolling, 12-month summation of the landfill gas throughput for emissions units P001-P004 combined.

- (2) Until construction of the expansion authorized by permit # P0124272, issued to RSL Inc. (Facility ID 1431092049), is commenced and 40 CFR Part 63, Subpart AAAA is modified, the permittee shall comply with the applicable monitoring and recordkeeping requirements in 40 CFR Part 60, Subparts A and WWW, including the following sections:

60.753(g)	Overall monitoring and corrective action requirements
60.756(c)	Monitoring requirements for open flares
60.758(b)(4)	Record keeping requirements for control equipment
60.758(c)	Record keeping requirements for equipment operating parameters
60.758(c)(2)	Record keeping requirements for gas flow or bypass
60.758(c)(4)	Record keeping requirements for open flare operation without flame or flare pilot flame.
60.758(e)	Record keeping requirements for exceedances of operational standards in 60.753

- (3) After construction of the expansion authorized by permit # P0124272, issued to RSL Inc. (Facility ID 1431092049), is commenced, the permittee shall comply with the applicable monitoring and recordkeeping requirements in 40 CFR Part 60, Subparts A and XXX, including the following sections:

60.763(g)	Overall monitoring and corrective action requirements
60.766(c)	Monitoring requirements for open flares
60.768(b)(4)	Record keeping requirements for control equipment
60.768(c)	Record keeping requirements for equipment operating parameters
60.768(c)(2)	Record keeping requirements for gas flow or bypass
60.768(c)(4)	Record keeping requirements for open flare operation without flame or flare pilot flame.
60.768(e)	Record keeping requirements for exceedances of operational standards in 60.753
60.768(h)	Each owner or operator subject to the provisions of 40 CFR Part 60, Subpart XXX must keep for at least 5 years up-to-date, readily accessible records of all collection and control system monitoring data for parameters measured in 40 CFR 60.766(a)(1), (2) and (3), except as provided in 40 CFR Part 60.767(c)(2).
60.768(i)	Any records required to be maintained that are submitted electronically may be maintained in electronic format.

- (4) The permittee shall collect and record the following information for each day:
  - a. all periods during which there was no pilot flame or flare flame, when the emissions unit was in operation; and
  - b. the downtime for the flare and monitoring equipment when the collection and control system was in operation.
- (5) The permittee shall comply with the applicable monitoring and record keeping requirements under 40 CFR Part 63, Subpart AAAAA, including the following sections:

63.1980(a)	Record keeping requirements as specified in 40 CFR Part 60, Subpart WWW
63.1980(b)	Record keeping requirements as specified in 40 CFR Part 60, Subpart A and Table 1 of Subpart AAAAA, including SSM plans

- (6) The permittee shall maintain records which document the annual CO, PE, PM<sub>10</sub>, PM<sub>2.5</sub>, NOx, SO<sub>2</sub>, HCl, HF and methane emissions for this emissions unit.

e) Reporting Requirements

- (1) Until construction of the expansion authorized by permit # P0124272, issued to RSL Inc. (Facility ID 1431092049), is commenced and 40 CFR Part 63, Subpart AAAAA is modified, the permittee shall submit notifications and reports to the appropriate Ohio EPA District office as required pursuant to 40 CFR Part 60, Subparts A and WWW, per the following sections:

60.757(b)(3)	NMOC reporting exemption for collection and control systems
60.757(c)	Collection and control system design plan submission requirements
60.757(f)	Annual reporting requirements
60.757(g)	Initial performance test reporting requirements

- (2) After construction of the expansion authorized by permit # P0124272, issued to RSL Inc. (Facility ID 1431092049), is commenced, the permittee shall submit notifications and reports to the appropriate Ohio EPA District office as required pursuant to 40 CFR Part 60, Subparts A and XXX, per the following sections:

60.767(b)(3)	NMOC reporting exemption for collection and control systems
60.767(c)	Collection and control system design plan submission requirements
60.767(f)	Each owner or operator of a controlled landfill shall submit an equipment removal report 30 days prior to removal or cessation of operation of the control equipment. The equipment removal report shall contain all of the items in 40

	CFR 60.767(f).
60.767(g)	Each owner or operator of a landfill seeking to comply with 40 CFR 60.762(b)(2) using an active collection system designed in accordance with 40 CFR 60.762(b)(2)(ii) shall submit annual reports of the recorded information in 40 CFR 60.767(g)(1) through (g)(7). The initial annual report shall be submitted within 180 days of installation and start-up of the collection and control system, and shall include the initial performance test report required under 40 CFR 60.8.
60.767(h)	Each owner or operator seeking to comply with 40 CFR 60.762(b)(2)(iii) shall include the information in 40 CFR 60.767(h) with the initial performance test report required under 40 CFR 60.8.
60.767(i)	The owner or operator must submit reports electronically according to 40 CFR 60.767(i)(1) and (i)(2).
60.767(j)	The owner or operator must submit corrective actions and corresponding timelines according to 40 CFR 60.767(j)(1) and (j)(2).

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

63.1965	Deviation definition and requirements
63.1980(a)	Reporting requirements as specified in 40 CFR Part 60, Subpart WWW; except that annual report described under 60.757(f) above must be submitted every 6 months
63.1980(b)	Reporting requirements as specified in 40 CFR Part 60, Subpart A and Table 1 of Subpart AAAAA, including SSM plan reports

- (4) The permittee shall submit quarterly deviation (excursion) reports that include the following information:
- a. all periods when the gas stream is diverted from the control device or recovery system through a bypass line or the indication of bypass flow or any record which indicates that the bypass line valve was not maintained in the closed position;

- b. a listing of all days when visible emissions were present at the open flare and the corrective actions taken to eliminate the visible emissions;
- c. all periods of time during which the flare pilot flame or the flare flame was not present (the reports shall include the date, time, and duration of each such period) when the emissions unit was in operation;
- d. the description and duration of all periods when the recovery and treatment system was not operating for a period exceeding 1 hour and the length of time the recovery and treatment system was not operating.
- e. all exceedances of the rolling, 12-month limitation of the landfill gas throughput for emissions units P001-P004, combined.

Should a deviation occur, the deviation report shall include details sufficient to determine compliance with the time line provisions established under 40 CFR Part 60.755. The quarterly reporting requirement above may be more stringent than annual reporting requirements specified in 40 CFR Part 60, Subpart WWW or 40 CFR Part 60, Subpart XXX, and semi-annual reporting requirements specified in 40 CFR Part 63, Subpart AAAA. The permittee shall comply with all applicable reporting requirements, including any less stringent requirements.

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

- (5) The permittee shall submit annual reports that specify the total NMOC, CO, PE, PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>x</sub>, SO<sub>2</sub>, HCl, HF, methane emissions from this emissions unit for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific data for this emissions unit in the annual Fee Emission Report.

f) **Testing Requirements**

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

- a. Emission Limitation:

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

Applicable Compliance Method:

Compliance shall be demonstrated by compliance with the monitoring and testing requirements of 40 CFR Part 60, Subpart WWW and Subpart XXX as specified in d)(2) and d(3) and f)(2), f)(3), and f)(4) below.

- b. Emission Limitation:



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

Applicable Compliance Method:

Compliance shall be determined through visible emissions observations performed in accordance with Method 22 of 40 CFR Part 60, Appendix A, and 40 CFR Part 60, Subparts A, WWW and XXX [see f)(4) below].

c. Emission Limitations:

Hourly Emissions from P004 shall not exceed the following:

NMOC emissions shall not exceed 3.83 pounds per hour;

CO emissions shall not exceed 123.44 pounds per hour;

PE emissions shall not exceed 7.3 pounds per hour;

PM<sub>10</sub> emissions shall not exceed 7.3 pounds per hour;

PM<sub>2.5</sub> emissions shall not exceed 7.3 pounds per hour;

NO<sub>x</sub> emissions shall not exceed 26 pounds per hour;

SO<sub>2</sub> emissions shall not exceed 6.7 pounds per hour;

HCl emissions shall not exceed 10.3 lbs/hr;

HF emissions shall not exceed 1.7 lbs/hr;

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

NMOC emissions shall not exceed 16.79 TPY;

CO emissions shall not exceed 417.91 TPY;\*

PE shall not exceed 31.87 TPY;

PM<sub>10</sub> emissions shall not exceed 31.87 TPY;\*

PM<sub>2.5</sub> emissions shall not exceed 31.87 TPY;

NO<sub>x</sub> emissions shall not exceed 113.83 TPY;\*

SO<sub>2</sub> emissions shall not exceed 29.3 TPY;

Hydrogen chloride (HCl) emissions shall not exceed 45.18 TPY;

Hydrogen fluoride (HF) emissions shall not exceed 7.28 TPY;

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

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

Methane emissions shall not exceed 1563 TPY.

Applicable Compliance Method:

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

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

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

- (2) Until construction of the expansion authorized by permit # P0124272, issued to RSL Inc. (Facility ID 1431092049), is commenced and 40 CFR Part 63, Subpart AAAA is modified, the permittee shall comply with the applicable testing requirements in 40 CFR Part 60, Subparts A and WWW, including the following sections:

60.754(b)	NMOC emission rate calculation for equipment removal
60.754(c)	NMOC emission rate determination for PSD
60.752(b)(2)(iii)(B) and 60.754(d)	Performance test and test method requirements for enclosed combustor(s)
60.752(b)(2)(iii)(A), 60.754(e), and 60.18(f)	Performance test and test method requirements for open flare(s)

- (3) After construction of the expansion authorized by permit # P0124272, issued to RSL Inc. (Facility ID 1431092049), is commenced, the permittee shall comply with the applicable testing requirements under 40 CFR Part 60, Subparts A and XXX, including the following sections:

60.764(b)	NMOC emission rate calculation for equipment removal
60.764(c)	NMOC emission rate determination for PSD
60.762(b)(2)(iii)(B) and 60.764(d)	Performance test and test method requirements for enclosed combustor(s)
60.762(b)(2)(iii)(A), 60.764(e), and 60.18(f)	Performance test and test method requirements for open flare(s)

- (4) Compliance with the operational restrictions in c)(1) shall be determined by the recordkeeping requirements specified in d)(1).
  
- g) Miscellaneous Requirements
  - (1) This emission unit involves the use of open utility flares with a total combined LFG flow rate of 11,000 acfm for LFG destruction in the event of the gas recovery plants being shut down or poor gas quality. The Utility Flare Option results in no LFG recovery, only full destruction of collected LFG. For purposes of compliance with 40 CFR 60 Subpart WWW and 40 CFR 60 Subpart XXX, the utility flare is defined as a “flare” and is not considered an “enclosed combustor” under 40 CFR 60.751 and 40 CFR 60.761.