



**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

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

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

Public Involvement Coordinator:

Heather Lauer
Public Interest Center
(614) 644-2160
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.

Please Note: For ease of review, comments have been summarized and grouped by topic.

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/).

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/

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.

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 where 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/EnvironmentalServices/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/

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/.

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.

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.

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

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

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. 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.

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