

State Registration Number
N5619

**RENEWABLE OPERATING PERMIT
STAFF REPORT**

ROP Number
MI-ROP-N5619-
2020b

Pitsch Sanitary Landfill

State Registration Number (SRN): N5619

Located at

7905 Johnson Road, Belding, Ionia County, Michigan 48809

Permit Number: MI-ROP-N5619-2020b

Staff Report Date: January 22, 2019

Revision Dates: March 29, 2021, March 28, 2022

This Staff Report is published in accordance with Sections 5506 and 5511 of Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451). Specifically, Rule 214(1) of the administrative rules promulgated under Act 451, requires that the Michigan Department of Environment, Great Lakes, and Energy (EGLE), Air Quality Division (AQD), prepare a report that sets forth the factual basis for the terms and conditions of the Renewable Operating Permit (ROP).

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State Registration Number

N5619

RENEWABLE OPERATING PERMIT

December 2, 2019- STAFF REPORT

ROP Number

MI-ROP-N5619-
2020

Purpose

Major stationary sources of air pollutants, and some non-major sources, are required to obtain and operate in compliance with an ROP pursuant to Title V of the federal Clean Air Act; and Michigan’s Administrative Rules for Air Pollution Control promulgated under Section 5506(1) of Act 451. Sources subject to the ROP program are defined by criteria in Rule 211(1). The ROP is intended to simplify and clarify a stationary source’s applicable requirements and compliance with them by consolidating all state and federal air quality requirements into one document.

This Staff Report, as required by Rule 214(1), sets forth the applicable requirements and factual basis for the draft ROP terms and conditions including citations of the underlying applicable requirements, an explanation of any equivalent requirements included in the draft ROP pursuant to Rule 212(5), and any determination made pursuant to Rule 213(6)(a)(ii) regarding requirements that are not applicable to the stationary source.

General Information

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|---|--|
| Stationary Source Mailing Address: | Pitsch Sanitary Landfill, Inc. 675 Richmond, NW Grand Rapids, Michigan 49504 |
| Source Registration Number (SRN): | N5619 |
| North American Industry Classification System (NAICS) Code: | 562212 |
| Number of Stationary Source Sections: | 1 |
| Is Application for a Renewal or Initial Issuance? | Renewal |
| Application Number: | 201900078 |
| Responsible Official: | Gary Pitsch, Vice President, 616-363-4895 |
| AQD Contact: | Dave Morgan, Environmental Quality Specialist 616-356-0009 |
| Date Application Received: | May 2, 2019 |
| Date Application Was Administratively Complete: | May 2, 2019 |
| Is Application Shield in Effect? | Yes |
| Date Public Comment Begins: | December 2, 2019 |
| Deadline for Public Comment: | January 3, 2019 |

Source Description

The Pitsch Sanitary Landfill is a municipal solid waste landfill located in Belding, in Ionia County, Michigan. In landfills, natural biological processes produce leachate and landfill gas from the breakdown of waste constituents. Initially, decomposition is aerobic until the oxygen supply is exhausted. Anaerobic decomposition of buried refuse creates most of the landfill gas. Landfill gas (LFG) consists mainly of methane, carbon dioxide, and non-methane organic compounds (NMOC). The NMOC fraction consists of various organic hazardous air pollutants (HAP), greenhouse gases, and volatile organic compounds (VOC).

The Pitsch Sanitary Landfill began operation in the 1980's and currently has a design capacity greater than 2.5 million cubic meters. The facility consists of eight solid waste disposal cells. Cells 1 through 4 are at final grade and capped, Cells 5 & 6 are active, and Cells 7 & 8 are permitted but not constructed. There is also a closed fill area which was closed in 1992. The company plans to collect landfill gas using passive wells and route the gas to vent flares.

The following table lists stationary source emission information as reported to the Michigan Air Emissions Reporting System (MAERS) for the year 2018.

TOTAL STATIONARY SOURCE EMISSIONS

| Pollutant | Tons per Year |
|--------------------------------------|----------------------|
| Carbon Monoxide (CO) | 5.6 |
| Nitrogen Oxides (NO _x) | 0.3 |
| Particulate Matter (PM) | 0.2 |
| Sulfur Dioxide (SO ₂) | 0.06 |
| Non-methane organic compounds (NMOC) | 47.5 |

The following table lists Hazardous Air Pollutant emissions as estimated for the year 2018 by using Pitsch Sanitary Landfill LandGem Model inputs:

| Individual Hazardous Air Pollutants (HAPs) ** | Tons per Year |
|--|----------------------|
| Total Hazardous Air Pollutants (HAPs) | 10.0 |

**As listed pursuant to Section 112(b) of the federal Clean Air Act.

See Parts C and D in the ROP for summary tables of all processes at the stationary source that are subject to process-specific emission limits or standards.

Regulatory Analysis

The following is a general description and history of the source. Any determinations of regulatory non-applicability for this source are explained below in the Non-Applicable Requirement part of the Staff Report and identified in Part E of the ROP.

The stationary source is in Ionia County, which is currently designated by the United States Environmental Protection Agency (USEPA) as attainment/unclassified for all criteria pollutants.

The stationary source is subject to Title 40 of the Code of Federal Regulations (CFR), Part 70, because the source is subject to 40 CFR Part 60, Subpart WWW which requires the stationary source to obtain a Renewable Operating Permit with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters.

The stationary source is a minor source of HAP emissions because the potential to emit of any single HAP regulated by Section 112 of the federal Clean Air Act, is less than 10 tons per year and the potential to emit of all HAPs combined are less than 25 tons per year.

No emission units at the stationary source are currently subject to the Prevention of Significant Deterioration (PSD) regulations of Part 18, Prevention of Significant Deterioration of Air Quality of Act 451, because at the time of New Source Review permitting the potential to emit of carbon monoxide was less than 250 tons per year.

The stationary source is subject to the following federal standards:

1. Emission Guidelines for existing Municipal Solid Waste Landfills promulgated under 40 CFR Part 60, Subparts A and Cf.
2. New Source Performance Standards (NSPS) for Municipal Solid Waste Landfills promulgated in 40 CFR Part 60, Subparts A and WWW.
3. Maximum Achievable Control Technology Standards (MACT) for Municipal Solid Waste Landfills promulgated in 40 CFR Part 63, Subparts A and AAAA.
4. The National Emission Standard for Hazardous Air Pollutants (NESHAP) for Asbestos promulgated in 40 CFR Part 61, Subparts A and M.

It is noted that although the Emission Guidelines under 40 CFR Part 60, Subpart Cf became effective on October 28, 2016, no new applicable requirements apply until a federal or state plan to implement the Emission Guidelines is approved. Until a federal or state plan is approved the requirements of 40 CFR Part 60, Subpart WWW apply to the facility.

The stationary source is subject to Administrative Consent Order (ACO) No. EPA-5-12-113(a)-MI-03 entered between Pitsch Sanitary Landfill and the USEPA requiring various testing and monitoring. It is noted that by April 2016, Pitsch Sanitary Landfill satisfied the NMOC sampling and emission estimation requirements of Paragraphs 41 and 42. As a result, the company demonstrated that NMOC emission estimates are below 50 Megagrams/year and in accordance with the ACO may submit a periodic emission rate report every five years consistent with 40 CFR 60.757(b)(1).

The monitoring conditions contained in the ROP are necessary to demonstrate compliance with all applicable requirements and are consistent with the "Procedure for Evaluating Periodic Monitoring Submittals."

No emission units have emission limitations or standards that are subject to the federal Compliance Assurance Monitoring rule pursuant to 40 CFR Part 64, because all emission units at the stationary source either do not have a control device or those with a control device do not have potential pre-control emissions over the major source thresholds. Pre-control emissions were determined through Tier II sampling conducted under 40 CFR Part 60, Subpart WWW.

Please refer to Parts B, C and D in the draft ROP for detailed regulatory citations for the stationary source. Part A contains regulatory citations for general conditions.

Source-Wide Permit to Install (PTI)

Rule 214a requires the issuance of a Source-Wide PTI within the ROP for conditions established pursuant to Rule 201. All terms and conditions that were initially established in a PTI are identified with a footnote designation in the integrated ROP/PTI document.

The following table lists all individual PTIs that were incorporated into previous ROPs. PTIs issued after the effective date of ROP No. MI-ROP-N5619-2014 are identified in Appendix 6 of the ROP.

| PTI Number | | | |
|------------|--|--|--|
| NA | | | |

Streamlined/Subsumed Requirements

This ROP does not include any streamlined/subsumed requirements pursuant to Rules 213(2) and 213(6).

Non-applicable Requirements

Part E of the ROP lists requirements that are not applicable to this source as determined by the AQD, if any were proposed in the ROP Application. These determinations are incorporated into the permit shield provision set forth in Part A (General Conditions 26 through 29) of the ROP pursuant to Rule 213(6)(a)(ii).

Processes in Application Not Identified in Draft ROP

The following table lists processes that were included in the ROP Application as exempt devices under Rule 212(4). These processes are not subject to any process-specific emission limits or standards in any applicable requirement.

| PTI Exempt Emission Unit ID | Description of PTI Exempt Emission Unit | Rule 212(4) Citation | PTI Exemption Rule Citation |
|-----------------------------|--|----------------------|-----------------------------|
| EU00013 EUPROPANETANK | Propane tanks used for heating garage and office. Garage, 1000 gallon tank installed in 1994; office, 500 gallon tank installed in 1996. | Rule 212(4)(b) | Rule 284(2)(b) |
| EU00011 EU-HEATER | Propane powered radiant heater used in garage. 2 heaters estimated at 80,000 Btu/hour. | Rule 212(4)(b) | Rule 282(2)(b) |

Draft ROP Terms/Conditions Not Agreed to by Applicant

This draft ROP does not contain any terms and/or conditions that the AQD and the applicant did not agree upon pursuant to Rule 214(2).

Compliance Status

The AQD finds that the stationary source is expected to be in compliance with all applicable requirements at the time of issuance of the ROP except for requirements listed in Appendix 2. The table in Appendix 2 contains a Schedule of Compliance developed pursuant to Rule 119(a)(i). The applicant must adhere to this schedule and provide the required certified progress reports at least semiannually or in accordance with the schedule in the table. A Schedule of Compliance for any applicable requirement that the source is not in compliance with at the time of ROP issuance is supplemental to, and shall not sanction non-compliance with, the applicable requirements on which it is based.

Action taken by EGLE, AQD

The AQD proposes to approve this ROP. A final decision on the ROP will not be made until the public and affected states have had an opportunity to comment on the AQD's proposed action and draft permit. In addition, the USEPA is allowed up to 45 days to review the draft ROP and related material. The AQD is not required to accept recommendations that are not based on applicable requirements. The delegated decision maker for the AQD is Heidi Hollenbach, Grand Rapids District Supervisor. The final determination for ROP approval/disapproval will be based on the contents of the ROP Application, a judgment that the stationary source will be able to comply with applicable emission limits and other terms and conditions, and resolution of any objections by the USEPA.

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RENEWABLE OPERATING PERMIT

ROP Number

MI-ROP-N5619-
2020

January 10, 2020 - STAFF REPORT ADDENDUM

Purpose

A Staff Report dated December 2, 2019, was developed to set forth the applicable requirements and factual basis for the draft Renewable Operating Permit (ROP) terms and conditions as required by Rule 214(1) of the administrative rules promulgated under Act 451. The purpose of this Staff Report Addendum is to summarize any significant comments received on the draft ROP during the 30-day public comment period as described in Rule 214(3). In addition, this addendum describes any changes to the draft ROP resulting from these pertinent comments.

General Information

| | |
|-----------------------|---|
| Responsible Official: | Gary Pitsch, Vice President, 616-363-4895 |
| AQD Contact: | Dave Morgan, Environmental Quality Specialist 616-356-0009 |

Summary of Pertinent Comments

No pertinent comments were received during the 30-day public comment period.

Changes to the December 2, 2019 Draft ROP

No changes were made to the draft ROP.

State Registration
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RENEWABLE OPERATING PERMIT

ROP Number

N5619

March 29, 2021 - STAFF REPORT FOR RULE 217(2)
REOPENING

MI-ROP-N5619-2020a

Purpose

On October 16, 2020, the Department of Environment, Great Lakes, and Energy (EGLE), Air Quality Division (AQD), approved and issued Renewable Operating Permit (ROP) No. MI-ROP-N5619-2020 to Pitsch Sanitary Landfill located at 7905 Johnson Road in Belding, Michigan pursuant to Rule 214 of the Michigan Air Pollution Control Rules. Once issued, the AQD is required to reopen the ROP if the criteria described in Rule 217 are met. Only those conditions to be added or changed in the ROP are to be considered during this public comment period. The purpose of this Staff Report is to describe the changes that were made to the ROP pursuant to Rule 217.

General Information

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|---------------------------------|---|
| Responsible Official Section 1: | Gary Pitsch, Vice President, 616-363-4895 |
| AQD Contact: | David L. Morgan, Environmental Quality Specialist 616-824-1139 |
| Date Public Comment Begins: | March 29, 2021 |
| Deadline for Public Comment: | April 28, 2021 |

Regulatory Analysis

Currently, the Pitsch Sanitary Landfill is subject to the NSPS for Municipal Solid Waste Landfills under 40 CFR Part 60, Subpart WWW until a state or federal plan is developed and approved which implements the Emission Guidelines for existing municipal solid waste landfills under 40 CFR Part 60, Subpart Cf. Existing landfills are those installed, reconstructed or modified prior to July 14, 2014. All applicable requirements are also included in ROP No. MI-ROP-N5619-2020 issued by EGLE, AQD.

In May 2012, the United States Environmental Protection Agency (USEPA) and Pitsch entered into Administrative Consent Order (ACO) No. EPA-5-12-113(a)-MI-03 to address violations of NSPS requirements. As part of the ACO, Pitsch Sanitary Landfill had to meet the following:

- Conduct monitoring, recordkeeping, and reporting as specified by the NSPS and ROP.
- Conduct testing to demonstrate nonmethane organic compound (NMOC) emissions from the landfill.
- If all testing and emission estimates showed NMOC emissions to be below 50 Megagrams/year, Pitsch could submit a periodic emission rate report every 5 years consistent with 40 CFR 60.757(b)(1)(ii).
- Pitsch could discontinue submitting the annual NMOC emission rate reports upon capping or removal of the capture and collection system and closure of the landfill pursuant to 40 CFR 60.752(b)(2)(v).

The most recent NMOC emission report required under the ACO was dated June 21, 2016. That report showed total estimated NMOC emissions of less than 2.31 Megagrams/year through the year 2020, which is below the 50 Megagrams/year collection and control threshold in the NSPS, Subpart WWW. On September 1, 2020, the USEPA, Region V, Enforcement and Compliance Assurance Division, Office of Enforcement, provided a determination to the AQD to address inconsistencies between the ACO and NSPS requirements. In the USEPA correspondence, USEPA clarified that the intent of the ACO was to allow the Pitsch Sanitary Landfill to perform Tier 2 testing (under 40 CFR 60.754(a)(3)), and if the test results showed the facility NMOC emissions to be below 50 Megagrams/year, that the landfill would not have to meet the gas collection and control requirement provisions of NSPS WWW and could continue to submit NMOC emission estimates every five years. Essentially under 40 CFR 60.754(3)(iii), if the resulting

NMOC mass emission rate is less than 50 Megagrams/year, the owner or operator can submit a periodic estimate of NMOC emissions provided in 40 CFR 60.757(b)(1) and retest the site-specific NMOC concentration every 5 years.

Based on the clarification provided by USEPA and the results of NMOC emission reports, ROP No. MI-ROP-N5619-2020 is being reopened in order to remove applicable requirements related to landfill gas collection and control associated with 40 CFR Part 60, Subpart WWW and to add periodic emission rate reporting consistent with 40 CFR 60.757(b).

Description of Changes to the ROP

First, the EULANDFILL, EUPASSIVECOLL, EUACTIVECOLL, and EUOPENFLARE tables have been removed because gas collection and control requirements no longer apply. These tables were replaced with table EULANDFILL<50 which incorporates applicable requirements of 40 CFR Part 60, Subpart WWW. These requirements include conducting NMOC Tier II sampling every five years, submitting an annual NMOC emission rate report every five years and monitoring and recording the amount of solid waste in-place and the year-by-year waste acceptance rate.

Second, a condition was added under EULANDFILL<50 requiring that the Pitsch Sanitary Landfill submit, implement, and maintain an Odor Management Plan within 45 days of ROP issuance. This requirement was added under Rule 213(2) to address potential odors that could result from uncontrolled landfill gas emissions.

Third, the Schedule of Compliance requirements in Appendix 2 of the ROP have been removed because all conditions of the ACO have been met and the PSL is expected to be in compliance at the time of issuance of this ROP.

Action Taken by the Department

The AQD proposes to approve this change to ROP No. MI-ROP-N5619-2020, which was reopened by the AQD to incorporate the applicable requirements of 40 CFR Part 60, Subpart WWW. A final decision on the approval of the revised ROP will not be made until the public and any affected states have had an opportunity to comment on the proposed changes to the ROP and the United States Environmental Protection Agency (USEPA) has been allowed 45 days to review the proposed changes to the ROP. The delegated decision maker for the AQD is Heidi Hollenbach, Grand Rapids District Supervisor. The final determination for approval of the revised ROP will be based on a judgment that the stationary source will be able to comply with applicable emission limits and other requirements, and resolution of any objections by the public, any affected states or the USEPA.

Michigan Department of Environment,
Great Lakes, and Energy
Air Quality Division

State Registration Number

N5619

RENEWABLE OPERATING PERMIT

**May 4, 2021 - STAFF REPORT ADDENDUM FOR
RULE 217(2) REOPENING**

ROP Number

MI-ROP-N5619-2020a

Purpose

A Staff Report dated March 29, 2021, was developed to set forth the applicable requirements and factual basis for the draft reopening to Renewable Operating Permit's (ROP) terms and conditions as required by Rule 214(3) of the administrative rules promulgated under Act 451. The purpose of this Staff Report Addendum is to summarize any significant comments received on the draft ROP reopening during the 30-day public and affected state(s) comment period as described in Rule 214(3) and (4). In addition, this addendum describes any changes to the proposed ROP reopening resulting from these pertinent comments.

General Information

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|-----------------------|---|
| Responsible Official: | Gary Pitsch, Vice President, 616-363-4895 |
| AQD Contact: | David L. Morgan, Environmental Quality Specialist 616-824-1139 |

Summary of Pertinent Comments

No pertinent comments were received during the 30-day public comment period.

Changes to the March 29, 2021 Draft ROP Reopening

No changes were made to the draft ROP reopening.

RENEWABLE OPERATING PERMIT

March 28, 2022 - STAFF REPORT FOR RULE 217(2)
REOPENING

Purpose

On October 16, 2020, the Department of Environment, Great Lakes, and Energy (EGLE), Air Quality Division (AQD), approved and issued Renewable Operating Permit (ROP) No. MI-ROP-N5619-2020 to Pitsch Sanitary Landfill located at 7905 Johnson Road in Belding, Michigan pursuant to Rule 214 of the Michigan Air Pollution Control Rules. Once issued, the AQD is required to reopen the ROP if the criteria described in Rule 217 are met. Only those conditions to be added or changed in the ROP are to be considered during this public comment period. The purpose of this Staff Report is to describe the changes that were made to the ROP pursuant to Rule 217.

General Information

| | |
|---------------------------------|---|
| Responsible Official Section 1: | Gary Pitsch, Vice President, 616-363-4895 |
| AQD Contact: | David L. Morgan, Environmental Quality Specialist 616-824-1139 |
| Date Public Comment Begins: | March 28, 2022 |
| Deadline for Public Comment: | April 27, 2022 |

Regulatory Analysis

The AQD has determined that the ROP must be reopened in order to remove obsolete requirements related to 40 CFR Part 60, Subpart WWW and to add new applicable requirements associated with 40 CFR Part 62, Subpart OOO.

Description of Changes to the ROP

First, the EULANDFILL<50, emission unit table was removed because 40 CFR Part 60, Subpart WWW is no longer applicable and is obsolete. The table was replaced with emission unit table EULANDFILL<34 which incorporates applicable requirements of 40 CFR Part 62, Subpart OOO. EUASBESTOS has been updated with the requirements from 40 CFR Part 62, Subpart OOO in Special Conditions IV.1 and VI.3 replacing functionally identical but obsolete requirements from 40 CFR Part 60, Subpart WWW.

Second, the testing procedures in Appendix 5 were updated to those applicable requirements found in 40 CFR Part 62, Subpart OOO.

Third, the emission calculation procedures in Appendix 7 were updated to those applicable requirements found in 40 CFR Part 62, Subpart OOO.

Action Taken by the Department

The AQD proposes to approve this change to ROP No. MI-ROP-N5619-2020a, which was reopened by the AQD to incorporate the applicable requirements of 40 CFR Part 62, Subpart OOO. A final decision on the approval of the revised ROP will not be made until the public and any affected states have had an opportunity to comment on the proposed changes to the ROP and the United States Environmental Protection Agency (USEPA) has been allowed 45 days to review the proposed changes to the ROP. The delegated decision maker for the AQD is Heidi Hollenbach, Grand Rapids District Supervisor. The final

determination for approval of the revised ROP will be based on a judgment that the stationary source will be able to comply with applicable emission limits and other requirements, and resolution of any objections by the public, any affected states or the USEPA.

State Registration Number
N5619

RENEWABLE OPERATING PERMIT
May 18, 2022 - STAFF REPORT ADDENDUM

ROP Number
MI-ROP-N5619-2020b

Purpose

A Staff Report dated March 28, 2022, was developed to set forth the applicable requirements and factual basis for the draft Renewable Operating Permit (ROP) terms and conditions as required by Rule 214(1) of the administrative rules promulgated under Act 451. The purpose of this Staff Report Addendum is to summarize any significant comments received on the draft ROP during the 30-day public comment period as described in Rule 214(3). In addition, this addendum describes any changes to the draft ROP resulting from these pertinent comments.

General Information

| | |
|-----------------------|---|
| Responsible Official: | Gary Pitsch, Vice President, 616-363-4895 |
| AQD Contact: | Dave Morgan, Environmental Quality Specialist 616-824-1139 |

Summary of Pertinent Comments

The following comments were received by U.S.EPA during the 30-day public comment period:

1. Appendix 5, Tier 4, Section (A): We recommend adding "at least" before 6,570 hours. This makes the incorporated language more consistent with 40 CFR 62.16718(a)(6)(viii)(A).
2. Appendix 7, equation 1: The index of summation included in the argument of the exponential function should be included as a subscript (e.g., $e^{-(kt_i)}$).
3. Appendix 7, Tier 2: The final paragraph of the section incorporates 40 CFR 62.16718(a)(3)(iv)(A) and (B) but does not include the option to conduct a SEM demonstration using the tier 4 procedures as allowed in 40 CFR 62.16718(a)(3)(iv)(C). We recommend including the option to conduct a SEM demonstration using the tier 4 procedures.
4. Appendix 7, tier 3: The first paragraph of this section refers to the tier 4 procedures as included in Appendix 5 of the draft permit instead of 40 CFR Part 62 Subpart OOO. We recommend citing 40 CFR 62.16718(a)(6) within this section of the appendix for further consistency with the Federal plan.
5. Appendix 7, "Calculating expected gas generation flow rates from the landfill": The first paragraph of this section states that USEPA Region V may approve site-specific factors. While this may be true in practice, we recommend referring to the Administrator for consistency with both the Federal plan requirements at 40 CFR 62.16720(a)(1) and the other references to the Administrator already proposed within the draft permit.
6. Appendix 7, Equations 5 and 6: Equations 5 and 6 appear to be missing from the draft permit. We recommend adding the equations to the permit.

Changes to the March 28, 2022 Draft ROP

All changes proposed by U.S.EPA during the 30-day comment period were made to the draft ROP.