

Michigan Department of Environmental Quality  
Air Quality Division

State Registration Number

N5719

**RENEWABLE OPERATING PERMIT  
STAFF REPORT**

ROP Number

MI-ROP-N5719-2011

Landfill Management Company

Orchard Hill Sanitary Landfill

SRN: N5719

Located at

3290 Hennesey Road, Watervliet, Berrien, Michigan 49098

Permit Number: MI-ROP-N5719-2011

Staff Report Date: October 10, 2011

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) requires that the Michigan Department of Environmental Quality (MDEQ), 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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**October 10, 2011 STAFF REPORT**

**Purpose**

Major stationary sources of air pollutants, and some non-major sources, are required to obtain and operate in compliance with a ROP pursuant to Title V of the federal Clean Air Act of 1990 and Michigan's Administrative Rules for air pollution control pursuant to 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 report, as required by Rule 214(1), sets forth the applicable requirements and factual basis for the draft permit terms and conditions including citations of the underlying applicable requirements, an explanation of any equivalent requirements included in the draft permit 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**

Stationary Source Mailing Address:	Orchard Hill Sanitary Landfill 3290 Hennesey Road Watervliet, Michigan 49098
Source Registration Number (SRN):	N5719
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:	201000125
Responsible Official:	Ralph Balkema, Operations Manager 269-463-5588 Daniel Batts, Manager 269-463-5588
AQD Contact:	Dorothy Bohn, EQA 12 269-567-3552
Date Permit Application Received:	December 10, 2010
Date Application Was Administratively Complete:	December 16, 2010
Is Application Shield In Effect?	Yes
Date Public Comment Begins:	October 10, 2011
Deadline for Public Comment:	November 9, 2011

## **Source Description**

Orchard Hill Sanitary Landfill (Landfill) is located near Watervliet, Berrien County, Michigan, and is entirely owned and operated by Landfill Management Company. The single stationary source includes an active municipal solid waste (MSW) landfill with an active landfill gas collection system, both of which are operated year round. The collection system is comprised of a series of gas wells and a network of collection piping, headers, and condensate drains. The emissions from the Landfill are controlled by an open flare. The collection system is periodically modified by placing an additional gas well and/or collection pipe, as needed, and as sections of the Landfill are filled and begin to produce significant gas quantities. The primary standard industrial code is 4953 MSW landfill.

The Landfill serves as the final disposal point for general and household waste generated from the southwest area of Michigan. The Landfill is classified as a Type II facility; therefore, does not receive any regulated quantities of hazardous waste that cannot be placed in a Type II facility. General waste consists of industrial and commercial non-hazardous waste, and general municipal waste. As waste decomposes in the Landfill, gas is generated and collected. The gas is primarily methane and carbon dioxide.

The following table lists stationary source emission information as reported to the Michigan Air Emissions Reporting System in the **2011** submittal.

### **TOTAL STATIONARY SOURCE EMISSIONS**

<b>Pollutant</b>	<b>Tons per Year</b>
Carbon Monoxide (CO)	105.9
Nitrogen Oxides (NO <sub>x</sub> )	5.6
Particulate Matter (PM10)	35.8
Sulfur Dioxide (SO <sub>2</sub> )	2.1
Volatile Organic Compounds (VOCs)	23.5
Non-Methane Organic Compounds (NMOC)	22.0

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

See Parts C and D in the draft 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 located in Berrien County, which is currently designated by the U.S. 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 potential to emit carbon monoxide exceeds 100 tons per year. The source is subject to 40 CFR, Part 60, Subpart WWW, which requires affected facilities with a design capacity equal to or greater than 2.5 million cubic meters and 2.5 million megagrams (Mg) to obtain a ROP. The stationary source is not considered a major source of Hazardous Air Pollutant (HAP) emissions because the potential to emit of any single HAP regulated by the federal Clean Air Act, Section 112, is less than 10 tons per year and the potential to emit of all HAPs combined is less than 25 tons per year.

No emissions 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 each criteria pollutant was less than 250 tons per year.

The stationary source is currently not subject to greenhouse gas permitting requirements under Title V of the Clean Air Act because there is a three year deferral for biogenic sources.

The stationary source is subject to the New Source Performance Standards for MSW landfills promulgated in 40 CFR, Part 60, Subparts A and WWW. However, it is not yet subject to the Maximum Achievable Control Technology Standards for MSW landfills promulgated in 40 CFR, Part 63, Subparts A and AAAA, because the estimated emission rate of NMOC is currently under 50 Mg/yr. The Landfill will be required to conduct Tier II testing and submit annual NMOC emission reports until it has reached the 50 Mg/yr.

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 are subject to the federal Compliance Assurance Monitoring rule under 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.

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-N5719-2006 are identified in Appendix 6 of the ROP.

PTI Number			
NA			

**Equivalent Requirements**

This permit does not include any equivalent requirements pursuant to Rule 212(5). Equivalent requirements are enforceable applicable requirements that are equivalent to the applicable requirements contained in the original PTI, a Consent Order/Judgment, and/or the State Implementation Plan.

**Non-applicable Requirements**

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

Exempt Emission Unit ID	Description of Exempt Emission Unit	ROP Exemption	PTI Permit Exemption
EUSpaceheating	Several natural gas fired space heaters and furnaces that are used for space/comfort heating. The largest has a maximum capacity of 0.2 MMBtu/hr.	Rule 212(4)(b)	Rule 282(b)(i)
EUPropaneTank	One 100-gallon liquefied propane tank used as pilot gas for the open flare.	Rule 212(4)(c)	Rule 284(b)

**Draft ROP Terms/Conditions Not Agreed to by Applicant**

This permit 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 as of the effective date of this ROP.

**Action Taken by the MDEQ**

The AQD proposes to approve this permit. 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 permit 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 Ms. Mary Douglas, Kalamazoo District Supervisor. The final determination for ROP approval/disapproval will be based on the contents of the permit 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.

**RENEWABLE OPERATING PERMIT**

**November 10, 2011 STAFF REPORT ADDENDUM**

**Purpose**

A Staff Report dated October 10, 2011, was developed in order to set forth the applicable requirements and factual basis for the draft ROP terms and conditions as required by R 336.1214(1). 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 R 336.1214(3). In addition, this addendum describes any changes to the draft ROP resulting from these pertinent comments.

**General Information**

Responsible Official:	Ralph Balkema, Operations Manager 269-463-5588 Daniel Batts, Manager 269-463-5588
AQD Contact:	Dorothy Bohn, EQA 12 269-567-3552

**Summary of Pertinent Comments**

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

**Changes to the October 10, 2011 Draft ROP**

No changes were made to the draft ROP.