

State Registration Number  
N5991

Michigan Department of Environmental Quality  
Air Quality Division  
**RENEWABLE OPERATING PERMIT  
STAFF REPORT**

ROP Number  
MI-ROP-N5991-2016

Citizens Disposal, Incorporated

AND

Granger Electric of Grand Blanc, LLC

SRN: N5991

Located at

2361 West Grand Blanc Road, Grand Blanc, Michigan 48439

Permit Number: MI-ROP-N5991-2016

Staff Report Date: August 22, 2016

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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**STAFF REPORT**

**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 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 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**

Stationary Source Mailing Address:	Citizens Disposal, Inc. Granger Electric of Grand Blanc, LLC 2361 West Grand Blanc Road Grand Blanc, Michigan 48439
Source Registration Number (SRN):	N5991
North American Industry Classification System (NAICS) Code:	5622112
Number of Stationary Source Sections:	2
Is Application for a Renewal or Initial Issuance?	Renewal
Application Number:	201500077
Responsible Official:	Citizens Disposal, Inc. Richard Rolf, General Manager 810-768-2232  Granger Electric of Grand Blanc, LLC Jim Grant, Director of Engineering & Operations 517-371-9734
AQD Contact:	Julie L. Brunner, Senior Environmental Engineer 517-284-6789
Date Application Received:	May 20, 2015
Date Application Was Administratively Complete:	June 2, 2015
Is Application Shield In Effect?	Yes
Date Public Comment Begins:	August 22, 2106
Deadline for Public Comment:	September 21, 2016

## Source Description

Citizens Disposal, Incorporated (operated by Republic Services) is a landfill located at 2361 West Grand Blanc Road, Grand Blanc in Genesee County. The landfill is adjacent to the US-23 freeway.

A landfill means an area of land or an excavation in which wastes are placed for permanent disposal. The Citizens Disposal landfill is classified as a Type II sanitary landfill, which is a Municipal Solid Waste (MSW) landfill. A "Municipal Solid Waste landfill" or a "Type II landfill" according to Act 451, Part 115, Solid Waste Management states:

A landfill which receives household waste incinerator ash or sewage sludge and which is not a land application unit, surface impoundment, injection well, or waste pile. A municipal solid waste landfill also may receive other types of solid waste, such as commercial waste, nonhazardous sludge, conditionally exempt small quantity generator waste, and industrial waste. Such a landfill may be publicly or privately owned.

Natural biological processes occurring in landfills transform the waste's constituents producing leachate and landfill gas. Initially, decomposition is aerobic until the oxygen supply is exhausted. Anaerobic decomposition of buried refuse creates most of the landfill gas. Landfill gas consists mainly of methane, carbon dioxide, and nonmethane organic compounds (NMOC). NMOC is the primary regulated air pollutant associated with landfill gas generation, which was promulgated as a regulated air pollutant under the Standards of Performance for New Stationary Sources, Title 40 of the Code of Federal Regulations Part 60 (40 CFR 60), Subpart WWW - Standards of Performance for Municipal Solid Waste Landfills.

An active landfill gas collection system has been installed to collect the landfill gas (LFG). This system utilizes gas mover equipment to route the collected LFG to a gas-to-electric plant, or to two open flares that are used as back-up control devices when the gas-to-electric plant is not operating. Seven spark ignition (SI) reciprocating internal combustion engines (RICE) at the plant combust the LFG to make electricity. In the process, the engines combust methane and NMOC which includes volatile organic compounds (VOCs) and hazardous air pollutants (HAPs) in the collected landfill gas. The gas-to-electric plant is owned and operated by Granger Electric of Grand Blanc, LLC.

The seven engines in the gas-to-electric plant meet the requirements of 40 CFR 63, Subpart ZZZZ for Stationary Reciprocating Internal Combustion Engines. The applicable requirements of 40 CFR 63, Subpart ZZZZ were incorporated with this ROP renewal for SI RICE operating at a major source of HAPs. The seven engines have a potential to emit of 34.8 tons per year (tpy) of formaldehyde and 49.5 tpy of total HAP emissions.

The following table lists stationary source emission information as reported to the Michigan Air Emissions Reporting System (MAERS) for the year 2014.

### **TOTAL STATIONARY SOURCE EMISSIONS**

<b>Pollutant</b>	<b>Tons per Year (tpy)</b>
Carbon Monoxide (CO)	278.8
Nitrogen Oxides (NO <sub>x</sub> )	140.9
PM10*	12.5
Sulfur Dioxide (SO <sub>2</sub> )	51.2
VOC	67.6

\* Particulate matter that has an aerodynamic diameter less than or equal to a nominal 10 micrometers.

In addition to the pollutants listed above that have been reported in MAERS, the potential to emit of greenhouse gases (GHGs) in carbon dioxide equivalents (CO<sub>2</sub>e) is 219,346 tpy based on the prediction of LFG generation by 2020. CO<sub>2</sub>e is a calculation of the combined global warming potentials of six GHGs (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride).

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 Requirements" part of the Staff Report and identified in Part E of the ROP.

The stationary source is located in Genesee County, which is currently designated by the U.S. Environmental Protection Agency (USEPA) as attainment/unclassified for all criteria pollutants.

Citizens Disposal, Inc. is a major stationary source subject to 40 CFR 70, because the potential to emit of CO and NO<sub>x</sub> exceed 100 tpy year, and the potential to emit of any single HAP regulated by the federal Clean Air Act, Section 112, is equal to or more than 10 tpy and the potential to emit of all HAPs combined is equal to or more than 25 tpy.

The stationary source is an existing Prevention of Significant Deterioration (PSD) source due to the potential to emit of greater than 250 tpy of any regulated air pollutant. No emission units at the stationary source have been subject to the PSD regulations in Part 18. Prevention of Significant Deterioration of the Michigan Air Pollution Control Rules or 40 CFR 52.21 because at the time of permitting the potential to emit of CO was less than 250 tpy.

Landfills which have a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters, and a construction, reconstruction or modification date after May 30, 1991, are subject to the New Source Performance Standards, Standards of Performance for Municipal Solid Waste Landfills promulgated in 40 CFR 60, Subpart A and WWW.

The landfill is also subject to the National Emission Standard for Hazardous Air Pollutants for Asbestos containing materials promulgated in 40 CFR Part 61, Subparts A and M. Also, the facility has a cold cleaner regulated by Rule 707 (R 336.1707) located in the maintenance shop.

EUENGINE6 and EUENGINE7 at the stationary source are subject to the New Source Performance Standards for Stationary Spark Ignition Internal Combustion Engines promulgated in 40 CFR 60, Subparts A and JJJJ.

All SI RICE in the gas-to-energy plant are subject to the National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines promulgated in 40 CFR 63, Subparts A and ZZZZ. Four engines are existing RICE, and three engines are new RICE.

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."

The stationary source is not subject to the federal Compliance Assurance Monitoring (CAM) rule (40 CFR 64) because the emission limitations or standards for MSW landfills are covered by 40 CFR 63, Subpart AAAA. Thus MSW landfills are exempt from CAM requirements.

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.

**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.

<b>Exempt Emission Unit ID</b>	<b>Description of Exempt Emission Unit</b>	<b>Rule 212(4) Exemption</b>	<b>Rule 201 Exemption</b>
EUDIESELFUEL	Two 1000 gallon diesel fuel tanks and one 500 gallon fuel tank	212(4)(c)	284(i)
EUWASTEOIL	One 500 gallon waste oil tank	212(4)(c)	284(i)
EUMOTOROIL	One 335 gallon motor oil tank	212(4)(c)	284(i)
EUHYDRAULICOIL	Two 335 gallon hydraulic oil tanks	212(4)(c)	284(i)
EUFURNANCE	One 70,000 Btu propane furnace	212(4)(b)	282(b)(i)
EUWATERHEATER	One 10,000 Btu propane water heater	212(4)(b)	282(b)(i)
EUPROPANE	One 500 gallon propane tank and one 250 gallon propane storage tank	212(4)(c)	284(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 as of the effective date of this ROP.

### **Action taken by the MDEQ, 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 Brad Myott, Lansing 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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**September 26, 2016 - STAFF REPORT  
ADDENDUM**

MI-ROP-N5991-2016

**Purpose**

A Staff Report dated August 22, 2016, was developed in order to set forth the applicable requirements and factual basis for the draft Renewable Operating Permit (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:	Citizens Disposal, Inc. Richard Rolf, General Manager 810-768-2232  Granger Electric of Grand Blanc, LLC Jim Grant, Director of Engineering & Operations 517-371-9734
AQD Contact:	Julie L. Brunner, Senior Environmental Engineer 517-284-6789

**Summary of Pertinent Comments**

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

**Changes to the August 22, 2016 Draft ROP**

No changes were made to the draft ROP.