

Michigan Department of Environmental Quality  
Air Quality Division

State Registration Number  
N1099

**RENEWABLE OPERATING PERMIT  
STAFF REPORT**

ROP Number  
MI-ROP-N1099-2011

Consumers Energy  
Northville Compressor Station

SRN: N1099

Located at

9440 Napier Road, Northville, Michigan 48167

Permit Number: MI-ROP-N1099-2011

Staff Report Date: August 15, 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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**August 15, 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:	Consumers Energy Northville Compressor Station 9440 Napier Road Northville, Michigan 48167
Source Registration Number (SRN):	N1099
North American Industry Classification System (NAICS) Code:	4925
Number of Stationary Source Sections:	1
Is Application for a Renewal or Initial Issuance?	Renewal
Application Number:	201000101
Responsible Official:	Ocie Gregory, Manager, Gas T&S Operations 248-433-5805
AQD Contact:	Katie Koster, Environmental Engineer 313-456-4678
Date Permit Application Received:	October 22, 2010
Date Application Was Administratively Complete:	October 22, 2010
Is Application Shield In Effect?	Yes
Date Public Comment Begins:	August 15, 2011
Deadline for Public Comment:	September 14, 2011

## **Source Description**

The Northville Compressor Station is located in the Township of Northville, County of Wayne, on the east side of Napier Rd. It is located in a primarily residential area, with the nearest residence located approximately 800 feet away to the southeast.

Northville Compressor Station operates compressors to raise the pressure of natural gas and move it to and from storage reservoirs and along various natural gas pipelines. Four natural gas fired engines provide mechanical energy to the compressors. These four engines were installed in 1959 -1960 (FGENGINES). Each is rated at 19 MMBTU/Hour (2700 hp).

The source also has 2 small cold cleaners used for parts cleaning, 6 natural gas fired building heaters, 1 natural gas fired boiler, 5 furnaces for building heat, 4 hot water heaters, 1 natural gas fired space heater, 1 natural gas fired emergency generator, 4 industrial process heaters, and multiple organic fluid storage tanks.

The following table lists stationary source emission information as reported to the Michigan Air Emissions Reporting System in the **2010** submittal.

### **TOTAL STATIONARY SOURCE EMISSIONS**

<b>Pollutant</b>	<b>Tons per Year</b>
Carbon Monoxide (CO)	2.5
Lead (Pb)	0
Nitrogen Oxides (NO <sub>x</sub> )	20
Particulate Matter (PM)	0.3
Sulfur Dioxide (SO <sub>2</sub> )	0
Volatile Organic Compounds (VOCs)	1

\*\*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 Wayne County, which is currently designated by the U.S. Environmental Protection Agency (USEPA) as a non-attainment area with respect to the particulate matter (PM<sub>2.5</sub>) standard. Wayne County is currently designated as attainment/unclassified for all other criteria pollutants.

The stationary source is subject to Title 40 of the Code of Federal Regulations (CFR), Part 70, because the potential to emit nitrogen oxides exceeds 100 tons per year and the potential to emit of any single HAP regulated by the federal Clean Air Act, Section 112, is more than 10 tons per year and/or the potential to emit of all HAPs combined is more 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 or 40 CFR, Part 52.21 because the process equipment was constructed/installed prior to June 19, 1978, the promulgation date of the PSD regulations.

FGENIGNES were installed prior to August 15, 1967. As a result, this equipment is considered "grandfathered" and is not subject to New Source Review (NSR) permitting requirements. However, future modifications of this equipment may be subject to NSR.

The stationary source is not subject to any New Source Performance Standards (NSPS).

The four 2700 hp natural gas fired reciprocating internal combustion engines in FGENGINES are classified as existing 2-stroke lean burn (2SLB) engines according to the definitions in 40 CFR Part 63 Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants from Stationary Reciprocating Internal Combustion Engines). Pursuant to 63.6590(b)(3)(i), existing spark ignition 2SLB RICE are not subject to any requirements of this subpart or Subpart A. Additionally, an initial notification is not required. However, if these units are modified or reconstructed and/or new units are installed, they may become subject to this standard

Pursuant to the August 20, 2010 amendments to 40 CFR Part 63 Subpart ZZZZ, the existing 2.16 MMBTU/hr (332 hp) natural gas-fired emergency generator (EUAUXGENERATOR) is classified as an existing stationary emergency RICE less than or equal to 500 hp, located at a major source of HAP's. As such, compliance with Subpart ZZZZ is required by October 19, 2013. The applicable requirements have been incorporated into the ROP, but are not applicable prior to 10/19/2013.

As of May 18, 2011, the effective date of 40 CFR Part 63 Subpart DDDDD (National Emission Standards for Major Sources: Industrial/Commercial/Institutional Boilers and Process Heaters) has been delayed indefinitely until the proceedings for judicial review of these rules are completed or the EPA completes its reconsideration of the rules, whichever is earlier. The following emission units are potentially subject to this regulation: EUBOILER1, EUFUELHEATER1, EULINEHEATER1, EULINEHEATER2, and EULINEHEATER3 and are currently listed as exempt devices in this staff report. Since the applicability criteria and language of the final regulation is unknown, to address this situation, a sourcewide conditions table was added to the ROP renewal with a high level citation to comply with applicable requirements of 40 CFR Part 63 Subpart DDDDD by the initial compliance date.

The stationary source is not subject to the Maximum Achievable Control Technology (MACT) Standards for Natural Gas Transmission and Storage facilities promulgated in 40 CFR Part 63 Subparts A and HHH. These exemptions are described in further detail in Part E of the ROP.

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-N1099-2006 are identified in Appendix 6 of the ROP.

PTI Number			
NA	NA	NA	NA

### **Streamlined/Subsumed Requirements**

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

### **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.

<b>Exempt Emission Unit ID</b>	<b>Description of Exempt Emission Unit</b>	<b>Rule 212(4) Exemption</b>	<b>Rule 201 Exemption</b>
EUBLDGHEATER	Nat. gas fired building heater 75,000 BTU/hr	R336.1212 (4)(b)	R336.1282(b)
EUBLDGHEATER2	Nat. gas fired building heater 75,000 BTU/hr	R336.1212 (4)(b)	R336.1282(b)
EUBLDGHEATER3	Nat. gas fired building heater 75,000 BTU/hr	R336.1212 (4)(b)	R336.1282(b)
EUBLDGHEATER4	Nat. gas fired building heater 75,000 BTU/hr	R336.1212 (4)(b)	R336.1282(b)
EUBLDGHEATER5	Nat. gas fired building heater 75,000 BTU/hr	R336.1212 (4)(b)	R336.1282(b)
EUBLDGHEATER6	Nat. gas fired building heater 75,000 BTU/hr	R336.1212 (4)(b)	R336.1282(b)
EUBOILER1	Nat. gas fired boiler for building heat 1.68 MMBTU/hr	R336.1212 (4)(b)	R336.1282(b)
EUFUELHEATER1	Nat. gas fired fuel gas heater 750,000 Btu/hr	R336.1212 (4)(b)	R336.1282(b)
EUHEATER1	Nat. gas fired furnace for building heat 80,000 Btu/hr	R336.1212 (4)(b)	R336.1282(b)
EUHEATER2	Nat. gas fired furnace for building heat 40,000 Btu/hr	R336.1212 (4)(b)	R336.1282(b)
EUHEATER3	Nat. gas fired furnace for building heat 100,000 Btu/hr	R336.1212 (4)(b)	R336.1282(b)
EUHEATER4	Nat gas fired furnace for building heat 100,000 Btu/hr	R336.1212 (4)(b)	R336.1282(b)
EUHEATER5	Nat. gas fired furnace for building	R336.1212 (4)(b)	R336.1282(b)

<b>Exempt Emission Unit ID</b>	<b>Description of Exempt Emission Unit</b>	<b>Rule 212(4) Exemption</b>	<b>Rule 201 Exemption</b>
	heat 100,000 Btu/hr		
EUHOTWTRHTR1	Nat. gas fired hot water heater 72,000 Btu/hr	R336.1212 (4)(b)	R336.1282(b)
EUHOTWTRHTR2	Nat. gas fired hot water heater 36,000 Btu/hr	R336.1212 (4)(b)	R336.1282(b)
EUHOTWTRHTR3	Nat. gas fired hot water heater 50,000 Btu/hr	R336.1212 (4)(b)	R336.1282(b)
EUHOTWTRHTR4	Nat. gas fired hot water heater 42,000 Btu/hr	R336.1212 (4)(b)	R336.1282(b)
EULINEHEATER1	Nat. gas fired pipeline heater 1, 6.5 MMBtu/hr	R336.1212 (4)(b)	R336.1282(b)
EULINEHEATER2	Nat. gas fired pipeline heater 2, 6.5 MMBtu/hr	R336.1212 (4)(b)	R336.1282(b)
EULINEHEATER3	Nat. gas fired pipeline heater 3, 0.25 MMBtu/hr	R336.1212 (4)(b)	R336.1282(b)
EUSPACEHTR1	Nat. gas fired space heater 100,000 Btu/hr	R336.1212 (4)(b)	R336.1282(b)
EUTANK1	Nat. gas condensate storage tank 6,500 gallons	R336.1212 (4)(c)	R336.1284(e)
EUTANK9	Nat. gas condensate storage tank 3,200 gallons	R336.1212 (4)(c)	R336.1284(e)
EUTANK11&23	Nat. gas condensate storage tanks (2) 8,800 gallons	R336.1212 (4)(c)	R336.1284(e)
EUTANK18	Gasoline storage tank 1000 gallons	R336.1212 (4)(c)	R336.1284(g)(i)
EUTANK19	Methanol storage tank 1000 gallons	R336.1212 (4)(c)	R336.1284 (i)

### **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 DEQ**

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 U.S. Environmental Protection Agency (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 Christopher Ethridge, Acting Southeast Michigan 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.

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**October 11, 2011 STAFF REPORT ADDENDUM**

**Purpose**

A Staff Report dated August 15, 2011, 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:	Ocie Gregory, Manager, Gas T&S Operations 248-433-5805
AQD Contact:	Katie Koster, Environmental Engineer 313-456-4678

**Summary of Pertinent Comments**

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

**Changes to the August 15, 2011 Draft ROP**

No changes were made to the draft ROP.