

Michigan Department of Environmental Quality
Air Quality Division

State Registration Number
N5573

**RENEWABLE OPERATING PERMIT
STAFF REPORT**

ROP Number
MI-ROP-N5573-2018

CONSUMERS ENERGY COMPANY-WHITE PIGEON COMPRESSOR STATION

SRN: N5573

Located at

68536 A Road, Route 1, White Pigeon, St. Joseph, Michigan 49099

Permit Number: MI-ROP-N5573-2018

Staff Report Date: December 18, 2017

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).

TABLE OF CONTENTS

December 18, 2017 STAFF REPORT	3
January 18, 2018 STAFF REPORT ADDENDUM	8

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RENEWABLE OPERATING PERMIT

ROP Number

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December 18, 2017 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:	Consumers Energy Company-White Pigeon Compressor Station 68536 A Road, Route 1 White Pigeon, Michigan 49099
Source Registration Number (SRN):	N5573
North American Industry Classification System (NAICS) Code:	486210
Number of Stationary Source Sections:	1
Is Application for a Renewal or Initial Issuance?	Renewal
Application Number:	201700096
Responsible Official:	Gregory Baustian, Ex. Director-Gas Compression 616-237-4009
AQD Contact:	Dennis Dunlap, Environmental Quality Specialist 269-567-3553
Date Application Received:	July 28, 2017
Date Application Was Administratively Complete:	July 28, 2017
Is Application Shield In Effect?	Yes
Date Public Comment Begins:	December 18, 2017
Deadline for Public Comment:	January 17, 2018

Source Description

The White Pigeon Compressor Station (Facility) is a natural gas compressor station located along a natural gas pipeline. The purpose of the Facility is to maintain pressure in the pipeline transporting natural gas from a main line to storage facilities located in Michigan or to local distribution companies. The Facility operates 12 natural gas-fired reciprocating compressor engines, three natural gas-fired emergency generators, and a few heaters and degreasers. The Facility is in a rural area with flat topography.

The following table lists stationary source emission information as reported to the Michigan Air Emissions Reporting System for the year 2016.

TOTAL STATIONARY SOURCE EMISSIONS

Pollutant	Tons per Year
Carbon Monoxide (CO)	23
Nitrogen Oxides (NO _x)	189
Particulate Matter (PM)	2.8
Sulfur Dioxide (SO ₂)	0.07
Volatile Organic Compounds (VOC)	12.7

The following table lists HAP emissions as calculated for the year 2016 by AQD:

Individual Hazardous Air Pollutant (HAP) **	Tons per Year
Formaldehyde	6
Total HAPs	6

**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 located in St. Joseph 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 NO_x, CO, and VOC exceeds 100 tons per year; the potential to emit of any single HAP regulated by the federal Clean Air Act, Section 112, is equal to or more than 10 tons per year; and the potential to emit of all HAPs combined is more than 25 tons per year.

FGENGINES, EUEMERGGEN, and EUHEATER at the stationary source were subject to review under 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 (NSR) permitting, the potential to emit of NO_x was greater than 250 tons per year. The permitted limit for FGENGINES and EUEMERGGEN represent Best Available Control Technology (BACT) for PSD.

EUENGINE1-1, EUENGINE1-2, EUENGINE2-1, and EUENGINE2-2 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.

Although EUENGINE1-5, EUENGINE1-6, EUENGINE2-5, and EUENGINE2-6 were installed after August 15, 1967, this equipment was exempt from NSR permitting requirements at the time it was installed. However, future modifications of this equipment may be subject to NSR.

FGENGINES and EUEMERGGEN at the stationary source are subject to the Standards of Performance for Stationary Spark Ignition Internal Combustion Engines promulgated in 40 CFR Part 60, Subparts A and JJJJ.

FGAUXGENS, FGENGINES, and EUEMERGGEN at the stationary source are subject to the Maximum Achievable Control Technology (MACT) Standards for Stationary Reciprocating Internal Combustion Engines (RICE) promulgated in 40 CFR Part 63, Subparts A and ZZZZ. FGAUXGENS are classified as existing stationary emergency RICE less than 500 hp located at a major source of HAP. Per 63.6602 of Subpart ZZZZ, the company must comply with Table 2c by October 19, 2003. FGENGINES are classified as new 4-stroke lean burn engines > 500 hp. FGENGINES and EUEMERGGEN were required to comply with Subpart ZZZZ at startup. The 70 percent control efficiency of VOC provided by the 2-way oxidation catalyst installed on FGENGINES to comply with Subpart ZZZZ meets the Rule 702 BACT requirements.

EUENGINE1-5, EUENGINE1-6, EUENGINE2-1, EUENGINE2-2, EUENGINE2-5, and EUENGINE2-6 are classified as existing 2-stroke lean burn engines, and EUENGINE1-1 and EUENGINE1-2 are classified as existing 4-stroke lean-burn engines according to the definitions in 40 CFR Part 63, Subpart ZZZZ. Pursuant to 63.6590(b)(3)(i) and (ii), these engines, which are greater than 500 hp, do not have to meet the requirements of this subpart and of Subpart A, including a notification. If these units are reconstructed, or new units are installed, they may become subject to this Subpart.

EUAUXBLR1, EUAUXBLR2, and EUHEATER at the stationary source are not subject to the MACT standards under the National Emission Standard for Hazardous Air Pollutants for Major Sources for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR Part 63, Subpart DDDDD. These heat a mixture of glycol and water to provide comfort heat for work areas and do not meet the definition of a "process heater" under this rule.

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 emission limitation of 0.2 g/hp-hr for CO from FGENGINES at the stationary source is not subject to the federal Compliance Assurance Monitoring rule under 40 CFR Part 64, because this emission limit is not federally enforceable. This emission limit is based on R 336.1205(1).

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. The PTIs issued after the effective date of ROP No. MI-ROP-N5573-2013 are identified in Appendix 6 of the ROP.

PTI Number			
137-08			

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
EUAUX1-BLR	2.5 MMBTU/hr natural gas-fired boiler for building heat located in Plant 1 Aux Bldg. Heats glycol/water mixture. Installed in 1963.	Rule 282(2)(b)(i)	Rule 212(4)
EUAUX2-BLR	2.5 MMBTU/hr natural gas-fired boiler for building heat located in Plant 2 Aux Bldg. Heats glycol/water mixture. Installed in 1964.	Rule 282(2)(b)(i)	Rule 212(4)
EUHWHAUXBLDG1	36,000 BTU/hr natural gas-fired hot water heater (Plant 1 Aux Bldg).	Rule 282(2)(b)(i)	Rule 212(4)
EUHWHAUXBLDG2	32,000 BTU/hr natural gas-fired hot water heater (Plant 2 Aux Bldg).	Rule 282(2)(b)(i)	Rule 212(4)
EUSHSTOBLDG1	45,000 BTU/Hr natural gas-fired space heater (Storage Building).	Rule 282(2)(b)(i)	Rule 212(4)
EUSHSTOBLDG2	45,000 BTU/Hr natural gas-fired space heater (Storage Building).	Rule 282(2)(b)(i)	Rule 212(4)
EUSHSTOBLDG3	45,000 BTU/Hr natural gas-fired space heater (Storage Building).	Rule 282(2)(b)(i)	Rule 212(4)
EUSHSTOBLDG4	45,000 BTU/Hr natural gas-fired space heater (Storage Building).	Rule 282(2)(b)(i)	Rule 212(4)
EUDISTTANK15	4,000 gallon AST for pipeline liquids.	Rule 284(2)(e)	Rule 212(4)(d)
EUDISTTANK16	4,000 gallon AST for pipeline liquids.	Rule 284(2)(e)	Rule 212(4)(d)
EUGASTANK20	1,000 gallon AST for gasoline.	Rule 284(2)(g)(i)	Rule 212(4)(d)
EUTANK3-7	4,200 gallon AST for pipeline liquids.	Rule 284(2)(e)	Rule 212(4)(d)

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 Ms. Mary Douglas, Kalamazoo 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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January 18, 2018 STAFF REPORT ADDENDUM

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Purpose

A Staff Report dated December 18, 2017, 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:	Gregory Baustian, Ex. Director-Gas Compression 616-237-4009
AQD Contact:	Dennis Dunlap, Environmental Quality Specialist 269-567-3553

Summary of Pertinent Comments

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

Changes to the December 18, 2018 Draft ROP

No changes were made to the Draft ROP.