

State Registration Number
N5572

**RENEWABLE OPERATING PERMIT
STAFF REPORT**

ROP Number
MI-ROP-N5572-2021

Howell Compressor Station

State Registration Number (SRN): N5572

Located at

3990 Crooked Lake Road, Howell, Livingston County, Michigan 48843

Permit Number: MI-ROP-N5572-2021

Staff Report Date: April 12, 2021

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).

TABLE OF CONTENTS

APRIL 12, 2020 - STAFF REPORT	3
MAY 17, 2021 - STAFF REPORT ADDENDUM	8

State Registration Number
N5572

RENEWABLE OPERATING PERMIT

APRIL 12, 2020 - STAFF REPORT

ROP Number
MI-ROP-N5572-2021

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

Stationary Source Mailing Address:	Howell Compressor Station 3990 Crooked Lake Road Howell, Michigan 48443
Source Registration Number (SRN):	N5572
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:	202000055
Responsible Official:	Stephen Schuman Vice President of Operations 501-724-2190
AQD Contact:	Samantha Davis Environmental Quality Analyst 517-282-1373
Date Application Received:	March 19, 2020
Date Application Was Administratively Complete:	March 30, 2020
Is Application Shield in Effect?	Yes
Date Public Comment Begins:	April 12, 2021
Deadline for Public Comment:	May 12, 2021

Source Description

The Howell Compressor Station is in rural Livingston County, about five miles southeast of the City of Howell. The compressor station operates in conjunction with an underground natural gas storage field located near the eastern end of a natural gas pipeline originating in western Kansas and the Texas Panhandle. Reciprocating internal combustion engine driven compressors are used to compress pipeline natural gas and inject gas into the storage field during summer months, and alternately, to withdraw gas from the field for re-delivery into the transmission pipeline during winter months. The facility has four reciprocating natural gas-fired internal combustion engines which drives compressors. All engines were installed prior to August 1967. Other equipment at the facility includes various tanks and heaters and a diesel generator. The facility uses a process which utilizes cooling effect of expanding gases (Joule-Thompson Effect) to remove moisture from the withdrawal gas. In 2020 the facility acquired Permit to Install (PTI) 72-20 for a glycol dehydrator with associated reboiler.

The following table lists stationary source emission information as reported to the Michigan Air Emissions Reporting System (MAERS) for the year **2019**.

TOTAL STATIONARY SOURCE EMISSIONS

Pollutant	Tons per Year
Carbon Monoxide (CO)	22.40
Lead (Pb)	NA
Nitrogen Oxides (NO _x)	693.90
Particulate Matter (PM10)	0.15
Particulate Matter (PM2.5)	0.15
Sulfur Dioxide (SO ₂)	0.08
Volatile Organic Compounds (VOCs)	9.59

The following table lists Hazardous Air Pollutant emissions as calculated for the year 2019 by Ron Hughes:

Individual Hazardous Air Pollutants (HAPs) **	Tons per Year
Formaldehyde	4.32
Total Hazardous Air Pollutants (HAPs)	4.32

**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 Livingston 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 potential to emit of nitrogen oxides exceeds 100 tons per year and the potential to emit of any single HAP regulated by Section 112 of the federal Clean Air Act, is equal to or more than 10 tons per year and/or the potential to emit of all HAPs combined is equal to or more than 25 tons per year.

No emission units at the stationary source are currently subject to the Prevention of Significant Deterioration (PSD) regulations of The Michigan Air Pollution Control Rules Part 18, Prevention of Significant Deterioration of Air Quality or 40 CFR 52.21 because the process equipment was constructed/installed prior to June 19, 1978, the promulgation date of the PSD regulations.

EUKVS6ICENGINE-1601, EUKVS6ICENGINE-1602, EUKVS6ICENGINE-1603, and EUKVS6ICENGINE-1604 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.

EUKVS6ICENGINE-1601, EUKVS6ICENGINE-1602, EUKVS6ICENGINE-1603, EUKVS6ICENGINE-1604, and EUGEN-1626 at the stationary source are subject to the National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines promulgated in 40 CFR Part 63, Subparts A and ZZZZ. 40 CFR 63.6590(b)(3)(ii) excludes EUKVS6ICENGINE-1601, EUKVS6ICENGINE-1602, EUKVS6ICENGINE-1603, and EUKVS6ICENGINE-1604 from complying with the requirements of 40 CFR Part 63, Subpart ZZZZ and 40 CFR Part 63, Subpart A including the initial notification requirements.

EUWB-HTR-1, EUWB-HTR-2, and EUWB-HTR-3 at the stationary source are subject to the National Emission Standard for Hazardous Air Pollutants for New or Existing Process Heater equal or greater than 10 MMBTU/hr. promulgated in 40 CFR Part 63, Subparts A and DDDDD.

EUPLANT-HTR-1 and EUDEHY (reboiler associated with glycol dehydrator) at the stationary source are subject to the National Emission Standard for Hazardous Air Pollutants for Existing or New Boiler Process Heater, Small Unit promulgated in 40 CFR Part 63, Subparts A and DDDDD.

EUDEHY at the stationary source are subject to the National Emission Standard for Hazardous Air Pollutants for Small New glycol dehydrators promulgated in 40 CFR Part 63, Subparts A and HHH.

The four-natural gas-fired reciprocating internal combustion engines (RICE) EUKVS6ICENGINE-1601, EUKVS6ICENGINE-1602, EUKVS12ICENGINE-1603, and EUKVS12ICENGINE-1604 are used to compress natural gas for transport. When these engines were installed, all internal combustion engines were exempt from the requirements to obtain an approved Air Use Permit to Install under Rule 36(c). (Air Pollution Regulation in State Implementation Plans: Michigan; EPA-450/3-78-072, Aug 1978)

*Rule 336.36 Permit System exemptions; Miscellaneous. The permit system does not apply to:
(c) Internal combustion engines*

As a result, this equipment is considered "grandfathered" and are not subject to New Source Review (NSR) permitting requirements. Future modifications of this equipment may be subject to NSR permitting requirements.

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 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.

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 containing emission units and flexible groups which are included in the Source-Wide PTI, that were incorporated into previous ROPs. PTIs issued after the effective date of ROP No. MI-ROP-N5572-2015 are identified in Appendix 6 of the ROP.

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
EUMETHANOLTNK-1	Methanol storage tank 792 gallons	R 336.1212(4)(d)	R 336.1284(n)
EUMETHANOLTNK-3	Methanol storage tank (portable) 1,500 gallons	R 336.1212(4)(d)	R 336.1284(n)
EUTNK5-1	Saltwater/condensate storage tank 8,400 gallons	R 336.1212(4)(d)	R 336.1284(2)(e)
EUTNK5-2	Saltwater/condensate storage tank 8,400 gallons	R 336.1212(4)(d)	R 336.1284(2)(e)
EUTNK5-3	Saltwater/condensate storage tank 8,400 gallons	R 336.1212(4)(d)	R 336.1284(2)(e)
EUTNK5-4	Saltwater/condensate storage tank 8,400 gallons	R 336.1212(4)(d)	R 336.1284(2)(e)
EUTNK5-5	Saltwater/condensate storage tank 8,400 gallons	R 336.1212(4)(d)	R 336.1284(2)(e)
EUTNK5-6	Saltwater/condensate storage tank 16,500 gallons	R 336.1212(4)(d)	R 336.1284(2)(e)
EUTNK-3	Ambitrol/jacket water storage tank	R 336.1212(4)(d)	R 336.1284(2)(i)
EUTNK-4	Ambitrol/jacket water storage tank	R 336.1212(4)(d)	R 336.1284(2)(i)
EUTLOAD	Truck loading from saltwater/condensate storage tanks EUTNK5-1 to EUTNK5-5, 8,400 gallons capacity, collects brine	R 336.1212(4)(d)	R 336.1284(2)(i)

PTI Exempt Emission Unit ID	Description of PTI Exempt Emission Unit	Rule 212(4) Citation	PTI Exemption Rule Citation
	water with a small amount of produced natural gas condensate liquids		
EUCOMGEN-1	Communication Tower Emergency Generator (propane 26.8 Hp)	R 336.1212(4)(e)	R 336.1284(2)(g)
Misc. Small Heaters*	30 natural gas fired comfort heater.	R 336.1212(4)(c)	R 336.1282(4)(b)

*30 small space heaters identified in the ROP application all reporting Rule 212(4)(c) citation and PTI exemption Rule 284(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 as of the effective date of this ROP.

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 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.¹

State Registration Number
N5572

RENEWABLE OPERATING PERMIT
MAY 17, 2021 - STAFF REPORT ADDENDUM

ROP Number
MI-ROP-N5572-2021

Purpose

A Staff Report dated April 12, 2021, 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:	Stephen D. Schuman, Vice President of Operations 501-724-2190
AQD Contact:	Samantha Davis, Environmental Quality Analyst 517-282-1373

Summary of Pertinent Comments

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

Changes to the April 12, 2021 Draft ROP

No changes were made to the draft ROP.