

Michigan Department of Environmental Quality
Air Quality Division

State Registration Number
N3341

**RENEWABLE OPERATING PERMIT
STAFF REPORT**

ROP Number
MI-ROP-N3341-2011

MICHIGAN CONSOLIDATED GAS – KALKASKA COMPRESSOR STATION

SRN: N3341

Located at

1250 MichCon Lane, Kalkaska, Kalkaska County, Michigan 49464

Permit Number: MI-ROP-N3341-2011

Staff Report Date: September 26, 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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SEPTEMBER 26, 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:	Michigan Consolidated Gas - Kalkaska Compressor Station P.O. Box 279 1250 MichCon Lane Kalkaska, Michigan 49646
Source Registration Number (SRN):	N3341
North American Industry Classification System (NAICS) Code:	221210
Number of Stationary Source Sections:	1
Is Application for a Renewal or Initial Issuance?	Renewal
Application Number:	201000082
Responsible Official:	Erick T. Doke, Manager, Transmission, Storage and Operations 989-365-5120
AQD Contact:	Rebecca Radulski, Environmental Engineer 989-705-3404
Date Permit Application Received:	September 17, 2010
Date Application Was Administratively Complete:	October 1, 2010
Is Application Shield In Effect?	Yes
Date Public Comment Begins:	September 26, 2011
Deadline for Public Comment:	October 26, 2011

Source Description

The Kalkaska Compressor Station is located about two miles south of Kalkaska on Highway US-131. The compressor station pumps pipeline quality natural gas to other areas through the pipelines. The facility is not involved in the production of natural gas or oil, nor is it involved in the storage or processing of natural gas.

Three compressors are powered by three 2,700 horsepower reciprocating engines. The three engines are fueled with pipeline quality natural gas and use lean burn combustion systems to reduce emissions of air contaminants to the atmosphere. A natural gas engine and generator set are used as backup electrical power in the event power is lost from the primary grid to the site. The facility also contains many furnaces and heaters for building heat, hot water heaters, and small storage tanks for hydrocarbon liquids, glycol, waste water, and lubricating oil.

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

Pollutant	Tons per Year
Carbon Monoxide (CO)	27.8
Lead (Pb)	0
Nitrogen Oxides (NO _x)	27.7
Particulate Matter (PM)	4.4
Sulfur Dioxide (SO ₂)	0.05
Volatile Organic Compounds (VOCs)	17.5

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

In addition to the pollutants listed above that have been reported in MAERS, the potential to emit of Greenhouse Gases in tons per year of CO₂e is <100,000. CO₂e is a calculation of the combined global warming potentials of six Greenhouse Gases (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride).

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 Kalkaska 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 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, because at the time of New Source Review permitting the potential to emit of carbon monoxide was less than 250 tons per year.

EUBACKUPGENSET at the stationary source is subject to the Maximum Achievable Control Technology Standards for Stationary Reciprocating Internal Combustion Engines promulgated in 40 CFR, Part 63, Subparts A and ZZZZ.

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-N3341-2006 are identified in Appendix 6 of the ROP.

PTI Number
1443-91

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.

Exempt Emission Unit ID	Description of Exempt Emission Unit	ROP Exemption	PTI Permit Exemption
EUFURNACE1	165,000 BTU/hr forced air furnace	R 336.1212(4)(b)	R 336.1282(b)(i)
EUFURNACE2	165,000 BTU/hr forced air furnace	R 336.1212(4)(b)	R 336.1282(b)(i)
EUFURNACE3	165,000 BTU/hr forced air furnace	R 336.1212(4)(b)	R 336.1282(b)(i)
EUFURNACE4	165,000 BTU/hr forced air furnace	R 336.1212(4)(b)	R 336.1282(b)(i)
EUFURNACE5	165,000 BTU/hr forced air furnace	R 336.1212(4)(b)	R 336.1282(b)(i)
EUFURNACE6	125,000 BTU/hr forced air furnace	R 336.1212(4)(b)	R 336.1282(b)(i)
EUFURNACE7	125,000 BTU/hr forced air furnace	R 336.1212(4)(b)	R 336.1282(b)(i)
EUFURNACE8	50,000 BTU/hr forced air furnace	R 336.1212(4)(b)	R 336.1282(b)(i)
EUFURNACE9	80,000 BTU/hr forced air furnace	R 336.1212(4)(b)	R 336.1282(b)(i)
EUWATERHEATER1	75,500 BTU/hr water heater	R 336.1212(4)(b)	R 336.1282(b)(i)
EUWATERHEATER2	32,000 BTU/hr water heater	R 336.1212(4)(b)	R 336.1282(b)(i)
EUUNITHEATER1	110,000 BTU/hr unit heater	R 336.1212(4)(b)	R 336.1282(b)(i)
EUUNITHEATER2	110,000 BTU/hr unit heater	R 336.1212(4)(b)	R 336.1282(b)(i)
EUUNITHEATER3	110,000 BTU/hr unit heater	R 336.1212(4)(b)	R 336.1282(b)(i)
EUUNITHEATER4	110,000 BTU/hr unit heater	R 336.1212(4)(b)	R 336.1282(b)(i)
EUUNITHEATER5	110,000 BTU/hr unit heater	R 336.1212(4)(b)	R 336.1282(b)(i)
EUUNITHEATER6	110,000 BTU/hr unit heater	R 336.1212(4)(b)	R 336.1282(b)(i)
EUUNITHEATER7	110,000 BTU/hr unit heater	R 336.1212(4)(b)	R 336.1282(b)(i)
EUUNITHEATER8	110,000 BTU/hr unit heater	R 336.1212(4)(b)	R 336.1282(b)(i)
EUUNITHEATER9	75,000 BTU/hr unit heater	R 336.1212(4)(b)	R 336.1282(b)(i)
EUUNITHEATER10	110,000 BTU/hr unit heater	R 336.1212(4)(b)	R 336.1282(b)(i)
EUUNITHEATER11	75,000 BTU/hr unit heater	R 336.1212(4)(b)	R 336.1282(b)(i)
EUUNITHEATER12	110,000 BTU/hr unit heater	R 336.1212(4)(b)	R 336.1282(b)(i)
EUUNITHEATER13	90,000 BTU/hr unit heater	R 336.1212(4)(b)	R 336.1282(b)(i)
EUUNITHEATER14	90,000 BTU/hr unit heater	R 336.1212(4)(b)	R 336.1282(b)(i)
EUUNITHEATER15	125,000 BTU/hr unit heater	R 336.1212(4)(b)	R 336.1282(b)(i)
EUBOILER1	2,930,000 BTU/hr Cleaver Brooks boiler	R 336.1212(4)(b)	R 336.1282(b)(i)
EUHEATEXCHANGER	500,000 BTU/hr gas heater	R 336.1212(4)(b)	R 336.1282(b)(i)
EURADIANTHEATER	2,500 BTU/hr radiant heater	R 336.1212(4)(b)	R 336.1282(b)(i)
EUTANK05	5,000 gallon fresh glycol tank	R 336.1212(4)(c)	R 336.1284(i)
EUTANK08	6,000 gallon hydrocarbon liquid tank	R 336.1212(4)(c)	R 336.1284(e)

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 DNRE

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 Janis Denman, Cadillac District, Gaylord Field Office 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 28, 2011, STAFF REPORT
ADDENDUM**

Purpose

A Staff Report dated 9-26-11, 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:	Erick T. Doke, Manager Transmission, Storage and Operations 989-365-5120
AQD Contact:	Rebecca Radulski, Environmental Engineer 989-705-3404

Summary of Pertinent Comments

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

Changes to the 9-26-11 Draft ROP

No changes were made to the draft ROP.