

State Registration Number  
N0890

**RENEWABLE OPERATING PERMIT  
STAFF REPORT**

ROP Number  
MI-ROP-N0890-2020a

**National Energy of Lincoln LLC**

State Registration Number (SRN): N0890

Located at

509 West State Street, Lincoln, Alcona County, Michigan 48742

Permit Number: MI-ROP-N0890-2020a

Staff Report Date: November 11, 2019

Amended Date: February 7, 2022

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

|  |          |
|--|----------|
| <b>NOVEMBER 11, 2019 - STAFF REPORT</b>  | <b>3</b> |
| <b>JANUARY 17, 2020 - STAFF REPORT ADDENDUM</b>  | <b>8</b> |
| <b>FEBRUARY 7, 2022 - STAFF REPORT FOR RULE 216(1)(a)(i)-(iv) ADMINISTRATIVE AMENDMENT</b> | <b>9</b> |

State Registration Number

N0890

**RENEWABLE OPERATING PERMIT**

**NOVEMBER 11, 2019 - STAFF REPORT**

ROP Number

MI-ROP-N0890-2020

**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:                          | Viking Energy of Lincoln LLC<br>509 West State Street<br>Lincoln, Michigan 48742 |
| Source Registration Number (SRN):                           | N0890  |
| North American Industry Classification System (NAICS) Code: | 221117   |
| Number of Stationary Source Sections:                       | 1  |
| Is Application for a Renewal or Initial Issuance?           | Renewal  |
| Application Number:   | 201800043  |
| Responsible Official:                                       | Mr. Neil Taratuta, Plant Manager<br>989-736-6618                                 |
| AQD Contact:  | Mr. William Rogers, Environmental Quality Analyst<br>989-705-3406                |
| Date Application Received:                                  | March 22, 2018   |
| Date Application Was Administratively Complete:             | March 22, 2018   |
| Is Application Shield in Effect?                            | Yes  |
| Date Public Comment Begins:                                 | November 11, 2019  |
| Deadline for Public Comment:                                | December 11, 2019  |

## **Source Description**

Viking Energy of Lincoln is located at 509 West State Street. It is within the city limits of Lincoln, Alcona County, Michigan. It is in the southwest part of Lincoln. There is a sawmill to the south of it. There are residences north of the facility, within a few hundred feet. The business center of Lincoln, with several stores, a restaurant, and the Post Office, is about half a mile northeast.

The plant is an electrical generating facility. The facility produces power by burning solid fuels to produce high pressure steam in a boiler.

The steam produced in the boiler powers an electrical generating turbine, which generates up to 18 megawatts of electricity at full capacity.

The boiler's primary fuel is wood chips, supplemented with tire-derived fuel (TDF), pentachlorophenol treated wood, creosote treated wood, particleboard, and plywood. The facility also burns natural gas when starting the boiler, in order to minimize the extra air emissions which would otherwise be associated with boiler start-up. The permit contains conditions limiting quantities of all fuels other than untreated wood chips.

All solid fuels are delivered to the site by truck. The solid fuels are stored on site in piles that are managed to control fugitive dust. The permit contains conditions requiring fugitive dust control for these piles.

The following table lists stationary source emission information as reported to the Michigan Air Emissions Reporting System (MAERS) for the year **2018**.

### **TOTAL STATIONARY SOURCE EMISSIONS**

| <b>Pollutant</b>                   | <b>Tons per Year</b> |
|------------------------------------|----------------------|
| Carbon Monoxide (CO)               | 95.92                |
| Lead (Pb)                          | 0.01                 |
| Nitrogen Oxides (NO <sub>x</sub> ) | 211.03               |
| Particulate Matter (PM)            | 28.73                |
| Sulfur Dioxide (SO <sub>2</sub> )  | 143.86               |
| Volatile Organic Compounds (VOCs)  | 0.85                 |

This source is a true minor source for Hazardous Air Pollutants (HAPs); thus, no HAP emissions data is listed.

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 Alcona 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 each of particulate matter, sulfur dioxide, carbon monoxide, and nitrogen oxides exceeds 100 tons per year.

The stationary source is a minor source of HAP emissions because the potential to emit of any single HAP regulated by Section 112 of the federal Clean Air Act, is less than 10 tons per year and the potential to emit of all HAPs combined are less than 25 tons per year.

The stationary source is considered a “synthetic minor” source in regards to the Prevention of Significant Deterioration regulations of the Michigan Air Pollution Control Rules Part 18, Prevention of Significant Deterioration of 40 CFR 52.21 because the stationary source accepted legally enforceable permit conditions limiting the potential to emit of nitrogen oxides, sulfur dioxide and carbon monoxide to less than 250 tons per year

EUBOILER at the stationary source is subject to the New Source Performance Standards for Industrial-Commercial-Institutional Steam Generating Units promulgated under 40 CFR Part 60, Subparts A and Db because the steam generating unit commenced construction after June 19, 1984, and the heat input capacity from fuels combusted in the steam generating unit is greater than 100 million BTU/hour).

EUBOILER at the stationary source is subject to the Maximum Achievable Control Technology Standards for Industrial, Commercial and Institutional Boilers and Process Heaters – Area Sources promulgated under 40 CFR Part 63, Subparts A and JJJJJJ because the stationary source is an area source of HAPs and EUBOILER includes an existing biomass fueled industrial boiler as defined in 40 CFR 63.11237.

EUGENERATOR at the stationary source is subject to the Maximum Achievable Control Technology Standards for Reciprocating Internal Combustion Engines (RICE) – Area Sources promulgated under 40 CFR Part 63, Subparts A and ZZZZ because the stationary source is an area source of HAPs and EUGENERATOR is an existing stationary emergency compression ignition engine ≤ 500 hp.

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 limitations for PM from EUBOILER at the stationary source are subject to the federal Compliance Assurance Monitoring rule under 40 CFR Part 64. This emission unit has a control device and potential pre-control emissions of PM greater than the major source threshold level.

The following Emission Units/Flexible Groups are subject to CAM:

| <b>Emission Unit/Flexible group ID</b> | <b>Pollutant/ Emission Limit</b>           | <b>UAR(s)</b>                            | <b>Control Equipment</b> | <b>Monitoring (Include Monitoring Range)</b>                          | <b>Emission Unit/Flexible Group for CAM</b> | <b>PAM? *</b> |
|--|--|--|--------------------------|---|---|---------------|
| EUBOILER                               | PM/ 0.10 pounds per million BTU heat input | R 336.1331 (1)(c)<br>40 CFR 60.43b(c)(1) | Multiple cyclone and ESP | Continuous opacity monitor used to indicate proper functioning of ESP | EUBOILER                                    | No            |
| EUBOILER                               | PM/ 23.0 pounds per hour                   | R 336.1331 (1)(c)                        | Multiple cyclone and ESP | Continuous opacity monitor used to indicate proper functioning of ESP | EUBOILER                                    | No            |
| EUBOILER                               | PM/ 98.9 tons per year                     | R 336.1331 (1)(c)                        | Multiple cyclone and ESP | Continuous opacity monitor used to indicate proper functioning        | EUBOILER                                    | No            |

| Emission Unit/Flexible group ID | Pollutant/ Emission Limit | UAR(s) | Control Equipment | Monitoring (Include Monitoring Range) of ESP | Emission Unit/Flexible Group for CAM | PAM? * |
|---------------------------------|---------------------------|--------|-------------------|--|--------------------------------------|--------|
|                                 |                           |        |                   |  |                                      |        |

\*Presumptively Acceptable Monitoring (PAM)

The Compliance Assurance Monitoring Plan for the stationary source requires monitoring opacity of stack emissions to indicate proper functioning of the electrostatic precipitator (ESP). It also requires prompt repairs or adjustments if opacity becomes greater than normal. Opacity is the “darkness” of the boiler exhaust. Under normal operating conditions, with the ESP operating properly, there will be little or no black smoke visible in the boiler exhaust. (Depending on dampness of fuel and weather conditions, there is commonly a white plume of condensed water vapor, but this is not considered to be pollution).

The permit also requires formal stack tests for particulate matter every few years. If that stack test shows compliance with PM limits and if observed opacity is the same as observed during stack tests, it is extremely likely the ESP is operating properly, and the stationary source is in compliance with its PM limits.

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-N0890-2013 are identified in Appendix 6 of the ROP.

| PTI Number |         |         |  |
|------------|---------|---------|--|
| 45-06B     | 260-86C | 260-86D |  |

**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 |
|-----------------------------|---|----------------------|-----------------------------|
| EUSPACEHEAT                 | Eight natural gas fired heaters, rated at 80,000 Btu/hour each; exemption applies to heaters less than 50,000,000 Btu/hour each | Rule 212(4)(b)       | Rule 282(b)(i)              |

**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 Shane Nixon, Cadillac / Gaylord 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.

State Registration Number  
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## RENEWABLE OPERATING PERMIT

ROP Number  
MI-ROP-N0890-2020

### JANUARY 17, 2020 - STAFF REPORT ADDENDUM

#### Purpose

A Staff Report dated November 11, 2019, 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: | Mr. Neil Taratuta, Plant Manager<br>989-736-6618                  |
| AQD Contact:          | Mr. William Rogers, Environmental Quality Analyst<br>989-705-3406 |

#### Summary of Pertinent Comments

The USEPA commented questioning how the facility would demonstrate compliance in a practically enforceable manner with its 24-hour fuel consumption limits on particle board and plywood, creosote treated wood, pentachlorophenol treated wood, and tire derived fuel (TDF). In response to this comment, Viking Energy of Lincoln has revised their Fuel Handling Plan. The revised plan clarifies that TDF feeds into the furnace over its own conveyor and is weighed as it is conveyed. The various alternate wood-based fuels will be mixed into the daily fuel feed in quantities less than the 24-hour limit for these fuels. Information on TDF and alternate wood fuels will be recorded in a manner acceptable to the AQD, as was already required by Permit Condition VI.19 of the EUBOILER table of the Renewable Operating Permit.

The USEPA commented recommending that the AQD should continue making the various off permit plans available to the public after the permit is finalized. These plans include plans for Preventive Maintenance and Malfunction Abatement, Fugitive Dust Control, Compliance Assurance Monitoring, Fuel Procurement and Handling. The AQD agrees.

#### Changes to the November 11, 2019 Draft ROP

No changes were made to the draft ROP.



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**RENEWABLE OPERATING PERMIT**  
**FEBRUARY 7, 2022 - STAFF REPORT FOR**  
**RULE 216(1)(a)(i)-(iv) ADMINISTRATIVE**  
**AMENDMENT**

ROP Number  
MI-ROP-N0890-2020a

**Purpose**

On March 9, 2020, the Department of Environment, Great Lakes, and Energy (EGLE), Air Quality Division (AQD), approved and issued Renewable Operating Permit (ROP) No. MI-ROP-N0890-2020 to Viking Energy of Lincoln LLC pursuant to Rule 214 of the administrative rules promulgated under Act 451. Once issued, a company is required to submit an application for changes to the ROP as described in Rule 216. The purpose of this Staff Report is to describe the changes that were made to the ROP pursuant to Rule 216(1)(a)(i-iv).

**General Information**

|  |   |
|--|---|
| Responsible Official:  | Todd Tolkinen, General Manager<br>231-825-2772                |
| AQD Contact:   | Caryn E. Owens, Senior Environmental Engineer<br>231-878-6688 |
| Application Number:  | 202100238   |
| Date Application for Administrative Amendment was Submitted: | December 6, 2021  |

**Regulatory Analysis**

The AQD has determined that the change requested by the stationary source meets the qualifications for an Administrative Amendment pursuant to Rule 216(1)(a)(iv).

**Description of Changes to the ROP**

The Company name changed from Viking Energy of Lincoln LLC to National Energy of Lincoln LLC.

**Compliance Status**

The AQD finds that the stationary source is expected to be in compliance with all applicable requirements associated with the emission unit(s) involved with the change as of the date of approval of the Administrative Amendment to the ROP.

**Action Taken by EGLE**

The AQD approved an Administrative Amendment to ROP No. MI-ROP-N0890-2020, as requested by the stationary source. The delegated decision maker for the AQD is the District Supervisor.