

State Registration  
Number  
M4204

**RENEWABLE OPERATING PERMIT  
STAFF REPORT**

ROP Number  
MI-ROP-M4204-2018b

**Zeeland Farm Services, Inc.**

SRN: M4204

Located at

2468 84<sup>th</sup> Avenue, Zeeland, Ottawa County, Michigan 49464-0290

Permit Number: MI-ROP-M4204-2018b

Staff Report Date: June 25, 2018

Amended Dates: April 23, 2019  
June 3, 2020

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 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).

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Michigan Department of Environmental Quality  
Air Quality Division

State Registration Number  
M4204

**RENEWABLE OPERATING PERMIT**

ROP Number

**June 25, 2018 - STAFF REPORT**

MI-ROP-M4204-2018

**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:	Zeeland Farm Services, Inc. P.O. Box 290 Zeeland, Michigan 49464
Source Registration Number (SRN):	M4204
North American Industry Classification System (NAICS) Code:	31122
Number of Stationary Source Sections:	1
Is Application for a Renewal or Initial Issuance?	Renewal
Application Number:	201700060
Responsible Official:	Eric Meeuwsen, General Manager 616-748-1827
AQD Contact:	Tyler Salamasick, Environmental Quality Analyst 616-558-1281
Date Application Received:	April 18, 2017
Date Application Was Administratively Complete:	April 18, 2017
Is Application Shield In Effect?	Yes
Date Public Comment Begins:	June 25, 2018
Deadline for Public Comment:	July 25, 2018

## Source Description

Zeeland Farm Services, Inc. (ZFS) is an agricultural feed and grain facility. The facility has been in operation since 1996 and is located in Zeeland Township just east of the City of Zeeland. The facility is in close proximity to several other industrial operations located to the north and west; agricultural property is located to the south and the east. ZFS consists of two (2) primary operations including an agricultural and feed operation, and soybean refinery and extraction operation. The soybean extraction process, which is done in the Soya Plant, includes the handling and drying of soybeans and meal, the preparation of the beans into thin flakes, and the extraction of the oil from the flakes using hexane. The two (2) products from the Soya Plant are soybean oil and meal, which is used as animal feed. In addition to the soybean operations, the facility uses landfill gas from a nearby landfill as the fuel source for their boilers as well as fuel for two (2) engines that produce electricity to sell. Historically, the facility had distributed biodiesel fuel, but did not produce it. However, the facility no longer distributes biodiesel.

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

### **TOTAL STATIONARY SOURCE EMISSIONS**

<b>Pollutant</b>	<b>Tons per Year</b>
Carbon Monoxide (CO)	123.32
Nitrogen Oxides (NO <sub>x</sub> )	39.34
Particulate Matter (PM)	18.48
Sulfur Dioxide (SO <sub>2</sub> )	18.43
Volatile Organic Compounds (VOCs)	125.66
Ammonia	0.02

The following table lists Hazardous Air Pollutant emissions as calculated for the year 2016 by the AQD:

<b>Individual Hazardous Air Pollutants (HAPs) **</b>	<b>Tons per Year</b>
Hexane	104.6
<b>Total Hazardous Air Pollutants (HAPs)</b>	<b>104.6</b>

\*\*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 Ottawa 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 of volatile organic compounds, carbon monoxide, nitrogen oxides, and particulate matter exceed 100 tons per year and 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/or the potential to emit of all HAPs combined is equal to or more than 25 tons per year.

The stationary source is considered a "synthetic minor" source in regard to the Prevention of Significant Deterioration regulations of Title 40 CFR 52.21 because the stationary source accepted legally enforceable permit conditions limiting the potential to emit of particulate matter to less than 250 tons per year. PTI 43-11 and 43-11A/B established PM monitoring and testing in order to better establish an accurate PM emission factor.

ZFS currently is under Consent Order AQD No 19-2015. The consent order has been incorporated into the ROP.

FGHANDLING, (EUBIN, EUHANDLING, and EUHANDLING2), at the stationary source is subject to the Standards of Performance for Grain Elevators promulgated in 40 CFR Part 60, Subparts A and DD.

EUBOILER and EUREFBOILER, at the stationary source are subject to the Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units promulgated in 40 CFR Part 60, Subparts A and Dc.

Four boilers at the stationary source (EULF/NGBLR5, EUNUKBOILER, EUREFBOILER and EUBOILER) are subject to the National Emission Standard for Hazardous Air Pollutants for Major Source for Industrial, Commercial, and Institutional Boilers and Process Heaters promulgated in Title 40 of the Code of Federal Regulations, Part 63, Subparts A and DDDDD.

FGLF/NGENGINES (EULF/NGENGINE1 and EULF/NGEGINE2), and EUGENERATOR 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. Both of these engines are also subject to the National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines promulgated in Title 40 of the Code of Federal Regulations, Part 63, Subparts A and ZZZZ. The facility complies with Subpart ZZZZ via compliance with Subpart JJJJ.

FGEXTRACTION (EUEXTRACTION, EUDTDC, EUSTORAGETANK, and EUDUMPTANK) at the stationary source is subject to the National Emission Standard for Hazardous Air Pollutants for Solvent Extraction for Vegetable Oil Production promulgated in 40 CFR Part 63, Subparts A and GGGG.

The extraction plant (FGEXTRACTION) is subject to R 336.1702, Best Available Control Technology (BACT) for volatile organic compounds which also meets R 336.1225 toxic analysis requirements for the hexane used at the plant.

ZFS obtained a general permit to install for one anhydrous ammonia storage tank (EUAMMONIA) in 2017.

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 or standards for PM, PM10, and PM2.5 from EUPREPEQUIPMENT 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, PM2.5 and PM10 greater than the major source threshold level.

FGEXTRACTION does not have emission limitations or standards that are subject to the federal Compliance Assurance Monitoring rule pursuant to 40 CFR Part 64, because the flexible group does not have potential pre-control emissions over the major source thresholds. Process is equipped with an absorber that is used for product recovery.

Emission Unit ID	Pollutant/Emission Limit	UAR(s)	Control Equipment	Monitoring	Presumptively Acceptable Monitoring?
EUPREPEQUIPMENT	Particulate Matter (PM)/ 0.044 pounds per 1,000 pounds of exhaust gases	R 336.1331(1)(c)	Baghouse	Pressure Drop Indicator and daily non-certified visual emissions observations	No
EUPREPEQUIPMENT	PM10/5.55 pph	R 336.2803, R 336.2804, 40 CFR 52.21 (c)&(d)	Baghouse	Pressure Drop Indicator and daily non-certified visual emissions observations	No
EUPREPEQUIPMENT	PM2.5/4.44 pph	R 336.2803, R 336.2804, 40 CFR 52.21 (c)&(d)	Baghouse	Pressure Drop Indicator and daily non-certified visual emissions observations	No

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-M4204-2012 are identified in Appendix 6 of the ROP.

PTI Number			
479-95E	94-04A	270-05	271-05
93-07	43-11a		

**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.

<b>PTI Exempt Emission Unit ID</b>	<b>Description of PTI Exempt Emission Unit</b>	<b>Rule 212(4) Citation</b>	<b>PTI Exemption Rule Citation</b>
EUNITROGEN	6000 gallon Nitrogen Tank	Rule 212(4)(d)	Rule 284(2)(j)

**Draft ROP Terms/Conditions Not Agreed to by Applicant**

The following table lists terms and/or conditions of the draft ROP that the AQD and the applicant did not agree upon and outlines the applicant’s objections pursuant to Rule 214(2). The terms and conditions that the AQD believes are necessary to comply with the requirements of Rule 213 shall be incorporated into the ROP.

<b>Emission Unit/ Flexible Group ID</b>	<b>Permit Term(s) and/or Condition(s) in Dispute</b>	<b>Applicant’s Objection</b>
EUGENERATOR	Source determination	The applicant submitted the required information for the emergency generator located at the ZFS Solutions Administration Building under protest. They did not agree that ZFS Solutions Administration Building is part of the ZFS stationary source.

**Compliance Status**

As stated by Zeeland Farm Services, the equipment associated with FGEXTRACTION was last tested in December of 2011. FGEXTRACTION was not tested within the 5-year required time period. ZFS has committed to conduct stack testing for EUEXTRACTION the week of August 27, 2018. ZFS will submit a stack testing plan to the AQD by June 27, 2018 for approval. A complete report of the results from the testing will be submitted to the AQD within 60 days of the completed test. ZFS is expected to be in compliance with all other aspects of the renewable operating permit.

**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 Heidi Hollenbach, Grand Rapids 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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**RENEWABLE OPERATING PERMIT**

ROP Number  
MI-ROP-M4204-2018

**July 30, 2018 - STAFF REPORT ADDENDUM**

**Purpose**

A Staff Report dated June 25, 2018, 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:	Eric Meeuwsen, General Manager 616-748-1827
AQD Contact:	Tyler Salamasick, Environmental Quality Analyst 616-558-1281

**Summary of Pertinent Comments**

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

**Changes to the June 25, 2018 Draft ROP**

No changes were made to the draft ROP.

**RENEWABLE OPERATING PERMIT**

**April 23, 2019 - STAFF REPORT FOR RULE 216(2)  
MINOR MODIFICATION**

**Purpose**

On September 18, 2018, the Department of Environmental Quality, Air Quality Division (AQD), approved and issued Renewable Operating Permit (ROP) No. MI-ROP-M4204-2018 to Zeeland Farm Services, Incorporated 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(2).

**General Information**

Responsible Official:	Eric Meeuwsen, General Manager 616-748-1827
AQD Contact:	Caryn E. Owens, Environmental Engineer 231-878-6688
Application Number:	201900058
Date Application for Minor Modification was Submitted:	March 25, 2019

**Regulatory Analysis**

The AQD has determined that the change requested by the stationary source meets the qualifications for a Minor Modification pursuant to Rule 216(2).

**Description of Changes to the ROP**

Incorporate Permit to Install number 4-19, which was to remove the meal loadout equipment, which included 4 Loadout Bins, 2 Loadout Spouts from EUPREPEQUIPMENT, since Zeeland Farm Services claims the equipment is now exempt under Rule 291. The meal loadout equipment previously vented to the Emission Unit EUPREPEQUIPMENT baghouse, but a new, dedicated baghouse was installed to control meal loadout emissions.

This project did not change the facility status.

**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 Minor Modification to the ROP.

### **Action Taken by the DEQ**

The AQD proposes to approve a Minor Modification to ROP No. MI-ROP-M4204-2018, as requested by the stationary source. A final decision on the Minor Modification to the ROP will not be made until any affected states and the United States Environmental Protection Agency (USEPA) has been allowed 45 days to review the proposed changes to the ROP. The delegated decision maker for the AQD is the District Supervisor. The final determination for approval of the Minor Modification 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 requirements, and resolution of any objections by any affected states or the USEPA.

State Registration Number

M4204

## RENEWABLE OPERATING PERMIT

ROP Number

MI-ROP-M4204-2018b

### June 3, 2020 - STAFF REPORT FOR RULE 216(2) MINOR MODIFICATION

#### **Purpose**

On June 10, 2019, the Michigan Department of Environment, Great Lakes, and Energy (EGLE), Air Quality Division (AQD), approved and issued Renewable Operating Permit (ROP) No. MI-ROP-M4204-2018a to Zeeland Farm Services, Incorporated 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(2).

#### **General Information**

Responsible Official:	Eric Meeuwsen, General Manager 616-748-1827
AQD Contact:	Caryn E. Owens, Environmental Engineer 231-878-6688
Application Number:	202000063
Date Application for Minor Modification was Submitted:	April 9, 2020

#### **Regulatory Analysis**

The AQD has determined that the change requested by the stationary source meets the qualifications for a Minor Modification pursuant to Rule 216(2).

#### **Description of Changes to the ROP**

Incorporate PTI No. 201-19 into the ROP, which was for two 1,000-gallon anhydrous ammonia nurse tanks.

These tanks are existing and were originally covered by an anhydrous ammonia general PTI. However, since ZFS does not have a permanent anhydrous ammonia storage tank and the nurse tanks are filled off-site, many of the general permit conditions do not apply.

Additionally, based on request from the facility and supplied manufacturing data, AQD updated the differential pressure range from 1 to 6 inches to 1 to 8 inches for EUPREPEQUIPMENT to match the updated CAM Plan.

AQD Consent Order Number 19-2015 has been terminated, so the references to the associated Consent Order have been removed.

#### **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 Minor Modification to the ROP.

## **Action Taken by EGLE**

The AQD proposes to approve a Minor Modification to ROP No. MI-ROP-M4204-2018a, as requested by the stationary source. A final decision on the Minor Modification to the ROP will not be made until any affected states and the United States Environmental Protection Agency (USEPA) has been allowed 45 days to review the proposed changes to the ROP. The delegated decision maker for the AQD is the District Supervisor. The final determination for approval of the Minor Modification 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 requirements, and resolution of any objections by any affected states or the USEPA.