

State Registration Number
A8650

**RENEWABLE OPERATING PERMIT
STAFF REPORT**

ROP Number
MI-ROP-A8650-2016a

FORD MOTOR COMPANY, MICHIGAN ASSEMBLY PLANT

SRN: A8650

Located at

38303 Michigan Avenue, Wayne, Wayne County, Michigan 48184

Permit Number: MI-ROP-A8650-2016a

Staff Report Date: June 13, 2016

Amended Date: June 9, 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).

TABLE OF CONTENTS

JUNE 13, 2016 DRAFT STAFF REPORT	3
AUGUST 2, 2016 STAFF REPORT ADDENDUM	9
JUNE 9, 2020 STAFF REPORT FOR RULE 216(1)(a)(v) ADMINISTRATIVE AMENDMENT	11

Michigan Department of Environmental Quality
Air Quality Division

State Registration Number

RENEWABLE OPERATING PERMIT

ROP Number

A8650

JUNE 13, 2016 DRAFT STAFF REPORT

MI-ROP-A8650-2016

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:	Ford Motor Company - Michigan Assembly Plant 38303 Michigan Avenue Wayne, Michigan 48184
Source Registration Number (SRN):	A8650
North American Industry Classification System (NAICS) Code:	336112
Number of Stationary Source Sections:	1
Is Application for a Renewal or Initial Issuance?	Renewal
Application Number:	201400174
Responsible Official:	Brian Kinnie, Plant Manager 734-467-0225
AQD Contact:	Robert Byrnes, Senior Environmental Engineer 517-284-6632
Date Application Received:	November 10, 2014
Date Application Was Administratively Complete:	November 10, 2014
Is Application Shield In Effect?	Yes
Date Public Comment Begins:	June 13, 2016
Deadline for Public Comment:	July 13, 2016

Source Description

The Ford Michigan Assembly Plant is located in the City of Wayne, stretching along the south side of Michigan Avenue starting just east of Hannan Road and extending past the CSX railroad right-of-way just west of downtown Wayne. The facility assembles automobiles and light duty trucks, and includes a powerhouse that contains 3 boilers fired by natural gas or landfill gas. The plant also has carbon adsorption units and regenerative thermal oxidizers for control of VOC emissions and numerous water wash scrubbers and fabric filters for control of particulate emissions. The area surrounding the facility is largely residential, with residences immediately to the east, west, and south of the facility.

The Ford Michigan Assembly Plant, formerly known as the Ford Motor Company, Michigan Assembly Complex, previously consisted of the Wayne Assembly Plant, Wayne Integral Stamping Plant and the Michigan Truck Assembly Plant. Recent consolidation of equipment has resulted in the elimination of the vehicle manufacturing operations at the Wayne Assembly Plant. However, the stamping operations and miscellaneous operations remain as well as the above-mentioned operations at the Ford Michigan Assembly Plant.

Also, in the ROP, for all of the emission units associated with the vehicle manufacturing operations, the facility is operating under a flexible permit which allows projects to proceed without a permit under R 336.1201 as long as there is no increase in emissions over the facility limits. On August 7, 2015, Permit to Install (PTI) No. 139-15 was issued to combine the natural gas usage limits for the stamping facility and remaining operations at the Wayne Assembly and Wayne Stamping building. However, this PTI does not contain flexible permit conditions.

The following table lists stationary source emission information as reported to the Michigan Air Emissions Reporting System (MAERS) for the year **2014**.

TOTAL STATIONARY SOURCE EMISSIONS

Pollutant	Tons per Year
Carbon Monoxide (CO)	13.1
Lead (Pb)	0.0
Nitrogen Oxides (NO _x)	64.0
Particulate Matter (PM)	6.0
Sulfur Dioxide (SO ₂)	1.7
Volatile Organic Compounds (VOCs)	395.61
Total Hazardous Air Pollutants (HAPs)	Not Calculated

**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 (GHG) in tons per year of CO₂e (carbon dioxide equivalents) is 278,402.6 tons per year. CO₂e is a calculation of the combined global warming potentials of six GHG (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride).

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 Wayne County, which is currently designated by the U.S. Environmental Protection Agency (USEPA) as attainment/unclassified for all criteria pollutants except for a portion of Wayne County designated as nonattainment for Sulfur Dioxide.

Wayne County is currently designated by the U.S. Environmental Protection Agency (USEPA) as a non-attainment area with respect to the Sulfur Dioxide standard.

The stationary source is subject to Title 40 of the Code of Federal Regulations (CFR) Part 70, because:

- the potential to emit Volatile Organic Compounds 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/or the potential to emit of all HAPs combined is equal to or more than 25 tons per year; and
- the potential to emit of GHG is 100,000 tons per year or more calculated as CO₂e and 100 tons per year or more on a mass basis.

FG-Facility at the stationary source was subject to review under the Prevention of Significant Deterioration regulations of Part 18, Prevention of Significant Deterioration of Air Quality of 40 CFR 52.21, because at the time of New Source Review permitting the potential to emit of Volatile Organic Compounds was greater than 250 tons per year.

At this time, there are no GHG applicable requirements to include in the ROP. The mandatory Greenhouse Gas Reporting Rule under 40 CFR Part 98 is not an ROP applicable requirement and is not included in the ROP.

The stationary source has emission units, EU-ECOAT, EU-SEALERS, EU-GUIDECOAT, EU-TOPCOAT, EU-MISCOAT, and EU-PURGE&CLEAN, which were subject to Act 451, Part 55, Rule 220 for Major Sources Impacting Nonattainment Areas at the time of New Source Review permitting.

EU-ECOAT, EU-GUIDECOAT and EU-TOPCOAT at the stationary source are subject to the Standards of Performance for Automobile and Light Duty Truck Surface Coating Operations promulgated in 40 CFR Part 60, Subparts A and MM.

EU-ECOAT, EU-SEALERS, EU-GUIDECOAT, EU-TOPCOAT, EU-MISCOAT and EU-PURGE&CLEAN at the stationary source are subject to the National Emission Standard for Hazardous Air Pollutants for the Surface Coating of Automobile and Light Duty Trucks promulgated in 40 CFR Part 63, Subparts A and IIII.

EU-PHOSPHATE, EU-FHBOILER, EU-BOILER #1, EU-BOILER #2 and EU-BOILER #3 at the stationary source are subject to the National Emission Standard for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers and Process Heaters promulgated in 40 CFR Part 63, Subparts A and DDDDD.

EU-ISAFP#1WEST, EU-ISAFP#2EAST, EU-WAPDIESEL, EU-FIREPUMP#1 and EU-FIREPUMP#2 at the stationary source are subject to the National Emission Standard for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines (RICE) 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."

EU-GUIDECOAT and EU-TOPCOAT at the stationary source is 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 Volatile Organic Compounds greater than the major source threshold level.

The monitoring for each control device is continuously recorded for the thermal oxidizer combustion temperature and the carbon concentrator desorption temperatures during coating operations. Records of any bypass line that is opened during coating operations will have a description of why and the length of time any bypass. Finally, records of maintenance inspections for the thermal oxidizer(s) and Carbon Concentrator(s) and the dates and reasons for repairs will be kept on file.

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 and Wayne County permits that were incorporated into previous ROPs. PTIs issued after the effective date of ROP No. MI-ROP-A8650-2016 are identified in Appendix 6 of the ROP.

PTI Number			
709-77	895-93A	150-99	470-99
284-05	57-08	58-08	C-4290
C-6148	C-7060	C-7416	C-7685-7686
C-8210-8211	C-8517-9129	C-8556	C-8884
C-9030-9033	C-9128-9129	C-9227	C-10526-10529
C-11840	NA	NA	NA

Streamlined/Subsumed Requirements

The following table lists explanations of any streamlined/subsumed requirements included in the ROP pursuant to Rules 213(2) and 213(6). All subsumed requirements are enforceable under the streamlined requirement that subsumes them.

Emission Unit/Flexible Group ID	Condition Number	Streamlined Limit/ Requirement	Subsumed Limit/ Requirement	Stringency Analysis
FG-Facility	1.2	4.8 pounds of VOC per job	1.4 kg VOC/LAC equivalent to 11.66 lbs VOC/GAC. Standards for Volatile Organic Compounds under 40 CFR 60.392(b)	The Streamlined requirement of 4.8 pounds VOC per job is more stringent than 11.66 lbs VOC/GAC.
FG-Facility	1.2	4.8 pounds of VOC per job	1.47 kg VOC/LAC equivalent to 12.24 lbs VOC/GAC. Standards for Volatile Organic Compounds under 40 CFR60.392(c)	The Streamlined requirement of 4.8 pounds VOC per job is more stringent than 12.24 lbs VOC/GAC.

Emission Unit/Flexible Group ID	Condition Number	Streamlined Limit/ Requirement	Subsumed Limit/ Requirement	Stringency Analysis
FG-Facility	VI.1	Records under SC VI.1 to calculate emissions on a monthly basis.	Performance test and Compliance provisions under 40 CFR 60.393.	The compliance provisions under SC VI.1 is equivalent to keeping a monthly record of VOC emissions under 40 CFR 60.393.
FG-Controls	VI.1 & VI.2	Continuous temperature monitoring for thermal oxidizers and desorption gas temperature for concentrators.	Monitoring of emissions and operations under 40 CFR 60.394.	Continuous temperature monitoring for the control equipment is equivalent to the continuous temperature monitoring requirements of 40 CFR 60.394.
FG-Facility	VII.2	Semi-annual reporting of deviations under SC VII.2	Reporting and recordkeeping requirements under 40 CFR 60.395	Semi-Annual reporting of deviations is equivalent as it has more detailed information than simply reporting emissions are over or under the limit.

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

There were no processes listed in the ROP Application as exempt devices under Rule 212(4). Exempt devices are not subject to any process-specific emission limits or standards in any applicable requirement.

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 Wilhemina McLemore, Detroit 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

A8650

RENEWABLE OPERATING PERMIT

AUGUST 2, 2016 STAFF REPORT ADDENDUM

ROP Number

MI-ROP-A8650-2016

Purpose

A Staff Report dated August 2, 2016 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:	Brian Kinnie, Plant Manager 734-467-0225
AQD Contact:	Robert Byrnes, Senior Environmental Engineer 517-284-6632

Summary of Pertinent Comments

Comment:

C. EMISSION UNIT CONDITIONS, Emission Unit Summary Table: The Flexible Group ID identified for EU-MARKINGINK should be FG-RULE287(c), not FG-RULE287(h).

Response:

The Flexible Group ID has been changed to FG-RULE287(c).

Comment:

FG-POWERHOUSE, Description: The last sentence "Also, there are three 800 kilowatt landfill gas generators." should be removed from the description as the generators have been removed from the facility.

Response:

"Also, there are three 800 kilowatt landfill gas generators." has been removed.

Comment:

FG-POWERHOUSE, IX. OTHER REQUIREMENT(S), 2. The references to "engine fuel" should be removed from the condition as the generators have been removed from the facility. The revised condition should read as follows:

Permittee shall discontinue the use of landfill gas as boiler ~~and engine~~ fuel, if a subsequent landfill gas analysis shows an appreciable increase in concentration of any landfill gas contaminant species, until approval for the use of such gas is given by the Division. A contaminant species is any individual contaminant species except methane, ethane, oxygen, nitrogen, water, hydrogen or carbon dioxide. An appreciable increase is that which would result in violation of any applicable requirement.2 **(R336.1201(3))**

Response:

The condition has been changed as requested. The AQD has also removed the references to "engine" in special condition VI. MONITORING/RECORDKEEPING 1.

1. The permittee shall keep the following records/calculations in a format acceptable to the AQD District Supervisor. The permittee shall compile all required records and complete all required calculations and make them available within 30 days following the end of each calendar month for which records are required to be kept. **(R336.1213(3))**
 - a. The hours of operation for each boiler ~~and each engine~~, daily.
 - b. The fuel usage rate for each boiler ~~and each engine~~, daily.
 - c. Calculations showing the FG-POWERHOUSE hourly mass NOx, CO, and SO2 emission rates.
 - d. Calculations showing the combined heat input of natural gas and landfill gas to EU-Boiler#1, EU-Boiler#2, EU-Boiler#3 on both an hourly and on a 12 month rolling time period.

Comment:

The Plant Manager has changed. The new Plant Manager is Mr. Brian Kinnie.

Response:

The plant manager/responsible official has been changed to Brian Kinnie.

State Registration Number

A8650

RENEWABLE OPERATING PERMIT

JUNE 9, 2020 STAFF REPORT FOR RULE 216(1)(a)(v) ADMINISTRATIVE AMENDMENT

ROP Number

MI-ROP-A8650-2016a

Purpose

On September 28, 2016, the Department of Environment, Great Lakes, and Energy (EGLE), Air Quality Division (AQD), approved and issued Renewable Operating Permit (ROP) No. MI-ROP-A8650-2016 to Ford Motor Company 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)(v).

General Information

Responsible Official:	Erik Williams, Site Manager 734-467-0902
AQD Contact:	Caryn E. Owens, Environmental Engineer 231-878-6688
Application Number:	202000083
Date Application for Administrative Amendment was Submitted:	May 5, 2020

Regulatory Analysis

The stationary source has requested that the Permit to Install (PTI) No. 192-17, issued on August 15, 2018, be incorporated into their ROP. The AQD has determined that the change requested meets the following criteria for an Administrative Amendment pursuant to Rule 216(1)(a)(v): the PTI includes terms and conditions that comply with the permit content requirements contained in Rule 213; the procedure used to issue the PTI was substantially equivalent to the requirements of Rule 214 regarding public participation and review by affected states; and the process or process equipment is in compliance with, and no changes are required to, the terms and conditions of the PTI that are to be incorporated into the ROP. Also, the permittee notified the AQD in writing within 30 days of commencing operation of the processes covered by the PTI and has submitted certified results of all required testing, monitoring and recordkeeping performed to demonstrate compliance with the PTI.

The flexible permit limits for NO_x, CO, SO₂, and Green House Gases (GHGs) under FG-FACILITY are made practically enforceable by the natural gas usage limit of 1.63 Bcf/year. For PM₁₀ and PM_{2.5}, control device requirements are included in FG-FACILITY, and under specific emission units and flexible groups to make the limits enforceable.

Description of Changes to the ROP

Minor Modification No. 202000083 was to incorporate PTI 192-17 into the ROP, which was for flexible emission limits for NO_x, CO, SO₂, PM₁₀, PM_{2.5}, and CO_{2e} for GHGs in FG-FACILITY. The changes also include a new limit on the amount of natural gas that can be used on an annual basis. There are no planned physical changes or changes in the method of operations at the facility.

FG-WAYNEFACILITY was removed from the ROP, since it was incorporated into the Flexible Group FG-FACILITY.

It should be noted that FG-FACILITY is where the new flexible permit emission limits are located. This flexible group has a different description than how "FGFACILITY" or "Source-Wide" is defined in most other permits. The description identifies specific parts of the auto plant that are part of the flexible group, namely: equipment used for automotive stamping, assembly, and painting operations for the entire Michigan Assembly Complex. This flexible group does not include the powerhouse, which is covered in a separate part of the ROP.

Compliance Status

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

Action Taken by EGLE

The AQD proposes to approve an Administrative Amendment to ROP No. MI-ROP-A8650-2016, as requested by the stationary source. A final decision on the Administrative Amendment to the ROP will not be made until 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 Administrative Amendment 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 the USEPA.