

Michigan Department of Environmental Quality
Air Quality Division

State Registration Number
A8648

**RENEWABLE OPERATING PERMIT
STAFF REPORT**

ROP Number
MI-ROP-A8648-2015a

FORD MOTOR COMPANY - ROUGE CENTER

SRN: A8648

Located at

3001 Miller Road, Dearborn, Michigan 48126

Permit Number: MI-ROP-A8648-2015a

Staff Report Date: June 29, 2015

Amended Date: March 28, 2018

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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RENEWABLE OPERATING PERMIT

June 29, 2015 STAFF REPORT

ROP Number

MI-ROP-A8648-2015

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 – Rouge Complex 3001 Miller Road Dearborn, Michigan 48126
Source Registration Number (SRN):	A8648
North American Industry Classification System (NAICS) Code:	336112
Number of Stationary Source Sections:	6
Is Application for a Renewal or Initial Issuance?	Renewal
Application Number:	201400107
Responsible Official:	<p>Section No. 1 Dearborn Paint Shop & Vehicle Assembly Plant Section No. 5 Dearborn Site Services Mr. Bradford D. Huff, Plant Manager 313-845-2480</p> <p>Section No. 2 Dearborn Diversified Manufacturing Plant Section No. 4 Dearborn Stamping Plant Mr. Frank S. Piazza, Plant Manager 313-322-7723</p> <p>Section No. 3 Dearborn Engine Plant Mr. Kevin Ford, Plant Manager, 313-322-6810</p> <p>Section No. 6 Dearborn Tool and Die Plant Mr. Terry Henning, Plant Manager</p>

	313-805-5262
AQD Contact:	Robert Byrnes, Senior Environmental Engineer 517-284-6632
Date Application Received:	July 1, 2014
Date Application Was Administratively Complete:	July 1, 2014
Is Application Shield In Effect?	Yes
Date Public Comment Begins:	June 29, 2015
Deadline for Public Comment:	July 29, 2015

Source Description

The Ford Dearborn Rouge Complex consists of 4 individual manufacturing plant which produce automobile and automobile components. There is an assembly plant which produces and paints vehicles. An engine manufacturing plant which produces automobile engines. A stamping plant which stamps vehicle body panels and similar body parts for vehicles. A diversified manufacturing plant which heat treats aluminum parts. Also located at the facility is a tool and die shop and the site services group which handles facility wide infrastructure maintenance.

The following table lists stationary source emission information as reported to the Michigan Air Emissions Reporting System (MAERS) for the year **2013**.

TOTAL STATIONARY SOURCE EMISSIONS

Pollutant	Tons per Year
Carbon Monoxide (CO)	13.8
Lead (Pb)	0
Nitrogen Oxides (NO _x)	56.5
Particulate Matter (PM)	16.2
Sulfur Dioxide (SO ₂)	0.4
Volatile Organic Compounds (VOCs)	740.9
Individual Hazardous Air Pollutants (HAPs) **	Not Calculated
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 509,654.5. 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 for Sulfur Dioxide.

A portion of 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 of which of the Ford Motor Company Rouge Complex is located within.

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, carbon monoxide and nitrogen oxide 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.
- 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 in section 1 of the ROP 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 CFR 40, PART 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.

SECTION 1 Dearborn Paint Shop & Vehicle Assembly Plant

EU-ECOAT, EU-GUIDECOAT and EU-TOPCOAT at the stationary source are subject to the New Source Performance Standards for Automobile and Light duty truck surface coating operations promulgated in 40 CFR Part 60, Subparts A and MM.

EU-Tanks at the stationary source are NOT subject to the New Source Performance Standards for Volatile Organic Liquid storage vessels promulgated in 40 CFR Part 60, Subparts A and Kb because all tanks are less than 75m³.

FG-NATURAL GAS at the stationary source is subject to the New Source Performance Standards for Small Industrial Commercial-Institutional Steam Generating Units promulgated in 40 CFR Part 60, Subparts A and Dc.

EU-ECOAT, EU-GUIDECOAT, EU-TOPCOAT, FG-REPAIR, EU-GLASS, EU-DEADENER, EU-SOLVENTS, EU-SEALERS, and EU-BLACKOUT/WAX at the stationary source is subject to the Maximum Achievable Control Technology Standards for Surface Coating of Automobiles and Light-Duty Trucks promulgated in 40 CFR Part 63, Subparts A and IIII.

EU-Tanks at the stationary source is subject to the Maximum Achievable Control Technology Standards for Organic Liquid Distribution (Non-Gasoline) promulgated in 40 CFR Part 63, Subparts A and EEEE.

EU-ECOAT, EU-GUIDECOAT, and EU-TOPCOAT at the stationary source are subject to the federal Compliance Assurance Monitoring (CAM) rules under 40 CFR Part 64. These emission units have a control device and potential pre-control emissions of volatile organic compounds greater than the major source threshold level.

EU-PHOSHWG1, EU-PHOSHWG2, EU-PAINTHWG1, EU-PAINTHWG2, and EU-PAINTHWG3 at the stationary source is 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.

SECTION 2 – Dearborn Diversified Manufacturing Plant

EU-Ecoatframe at the stationary source is subject to the Maximum Achievable Control Technology Standards for Surface Coating of Automobiles and Light-Duty Trucks promulgated in 40 CFR Part 63, Subparts A and IIII.

EU-MCDRYER the stationary source is 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-DDMPEMERGENGNS at the stationary source is subject to the Standards of Performance for Stationary Spark Ignition Internal Combustion Engines promulgated in 40 CFR Part 60, Subparts A and JJJJ.

SECTION 3 – Dearborn Engine Plant

This section at the stationary source is no longer subject to the Maximum Achievable Control Technology Standards for Surface Coating of Miscellaneous Metal Parts (MACT MMMM) as all of the paint lines have been removed.

SECTION 4 – Dearborn Stamping Plant

This section has been added to the renewal ROP as the stamping plant now supplies more than 50% of its production to the vehicle body shop in section 1.

EU-Stamping at the stationary source is subject to the Maximum Achievable Control Technology Standards for Surface Coating of Automobiles and Light-Duty Trucks promulgated in 40 CFR Part 63, Subparts A and IIII.

EU-DSPEGENERATOR1 and EU-DSPEMEGENERATOR2 at the stationary source is subject to the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines promulgated in 40 CFR Part 60, Subparts A and IIII.

SECTION 5 – Dearborn Site Services

The requirements of Consent Order SIP No. 13-1993 has been added to this section.

EURCSSSUB99GENER, EURCSSSUB100A1, EURCSSSUB100A2, EURCSSEASTYARD, EURCSSRADIOTWR, EURCSSROBNORTH, and EURCSSMEDFIT at the stationary source is subject to the National Emission Standard for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines promulgated in 40 CFR Part 63, Subparts A and ZZZZ.

SECTION 6 – Dearborn Tool and Die Plant

This section has been added to the Renewal ROP.

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-ECOAT, EU-GUIDECOAT, EU-TOPCOAT and FG-CONTROLS 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 Volatile Organic Compounds greater than the major

source threshold level. The monitoring for the thermal oxidizers and the carbon concentrators is a continuous recording the thermal oxidizer combustion temperature and the desorption temperatures for the concentrators during coating operations. For each control device in operation during production (coating vehicles, booth cleaning if credit is taken, etc.), the permittee shall conduct bypass monitoring for each bypass line such that the valve or closure method cannot be opened without creating an alarm condition for which a record shall be made. Records of the bypass line that was open and the length of time the bypass was open shall be kept on file. The permittee shall install, maintain and operate in a satisfactory manner, a pressure drop monitoring device for the fluidized carbon concentrator in FG-CONTROLS to monitor and record the pressure drop (across the trays) on a continuous basis during operation. The permittee will keep records of maintenance inspections, the dates and reasons for repairs and maintain these elements in an Operations and Maintenance Plan (O&M Plan).

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-A8648-2011 are identified in Appendix 6 of the ROP.

PTI Number			
454-96c	109-00	112-00	200-97
342-06a	C-4721	C-4722	C-10394
C-10395	C-10397	C-10398	C-10399
C-10418	C-10420	C-10421	C-10422
C-10423			

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	SC 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	SC 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	SC 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.

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August 17, 2015 STAFF REPORT ADDENDUM

MI-ROP-A8648-2015

Purpose

A Staff Report dated June 29, 2015, 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:	Section No. 1 - Dearborn Paint Shop & Vehicle Assembly Plant Section No. 5 - Dearborn Site Services Mr. Bradford D. Huff, Plant Manager 313-845-2480 Section No. 2 - Dearborn Diversified Manufacturing Plant Section No. 4 - Dearborn Stamping Plant Mr. Frank S. Piazza, Plant Manager 313-322-7723 Section No. 3 - Dearborn Engine Plant Mr. Kevin Ford, Plant Manager, 313-322-6810 Section No. 6 - Dearborn Tool and Die Plant Mr. Terry Henning, Plant Manager 313-805-5262
AQD Contact:	Robert Byrnes, Senior Environmental Engineer 517-284-6632

Summary of Pertinent Comments

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

Changes to the June 29, 2015 Draft ROP

No changes were made to the draft ROP.

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**March 28, 2018 STAFF REPORT FOR RULE
216(2) MINOR MODIFICATION**

MI-ROP-A8648-2015a

Purpose

On October 9, 2015, the Department of Environmental Quality, Air Quality Division (AQD), approved and issued Renewable Operating Permit (ROP) No. MI-ROP-A8648-2015 to Ford Motor Company - Rouge Center pursuant to R 336.1214. Once issued, a company is required to submit an application for changes to the ROP as described in R 336.1216. The purpose of this Staff Report is to describe the changes that were made to the ROP pursuant to R 336.1216(2).

General Information

Responsible Official:	Mr. Frank S. Piazza, Plant Manager 313-322-7723
AQD Contact:	Caryn E. Owens, Environmental Engineer 231-878-6688
Application Number:	201800023
Date Application For Minor Modification Was Submitted:	February 20, 2018

Regulatory Analysis

The AQD has determined that the change requested by the stationary source meets the qualifications for a Minor Modification pursuant to R 336.1216(2).

Description of Changes to the ROP

Incorporate PTI 1-16 into Section 4 of the ROP to operate various sealer stations via a traditional permit under EU-SEALERS AND ADHESIVES instead of Rule 290 exemption. VOC emissions from the sealing stations are emitted into the general in-plant environment. AQD has corrected the cross references for emission units in the FG-RULE290-S4 table, Emission Unit Summary Table and Flexible Group Table. These items were missed during finalizing the renewal.

This source is a major source for HAP/HAPs. Therefore, it is subject to Auto MACT as described in FG-AUTOMACT-DSP.

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-A8648-2015, 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 U.S. 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.