

State Registration Number
A8648

**RENEWABLE OPERATING PERMIT
STAFF REPORT**

ROP Number
MI-ROP-A8648-2022

Ford Motor Company, Rouge Center, Dearborn Paint Shop & Vehicle Assembly Plant

State Registration Number (SRN): A8648

Located at

3001 Miller Road, Dearborn, Wayne County, Michigan 48121

Permit Number: MI-ROP-A8648-2022

Staff Report Date: January 17, 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).

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January 17, 2022 STAFF REPORT

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:	Ford Motor Company 3001 Miller Road Dearborn, Michigan 48121
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:	202000041
Responsible Official:	Ms. Corey Williams, Plant Manager - Section 1 Dearborn Paint Shop & Vehicle Assembly Plant 313-673-2616 Mr. Frank S. Piazza, Plant Manager - Section 2 Dearborn Diversified Manufacturing Plant 313-322-7723 Mr. Nadeem Zaidi, Plant Manager - Section 3 Dearborn Engine Plant 313-322-6810 Mr. Frank S. Piazza, Plant Manager - Section 4 Dearborn Stamping Plant 313-322-7723 Ms. Melissa Bogema, Site Manager - Section 5 Dearborn Site Services 313-215-9729 Mr. Jeff Wagner, Plant Manager - Section 6

	Dearborn Tool and Die Plant 313-845-8364
AQD Contact:	Robert Byrnes, Senior Environmental Engineer 517-275-0439
Date Application Received:	March 9, 2020
Date Application Was Administratively Complete:	March 9, 2020
Is Application Shield in Effect?	Yes
Date Public Comment Begins:	January 17, 2022
Deadline for Public Comment:	February 16, 2022

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 **2019**.

TOTAL STATIONARY SOURCE EMISSIONS

Pollutant	Tons per Year
Carbon Monoxide (CO)	14.6
Lead (Pb)	0.0
Nitrogen Oxides (NO _x)	68.4
Particulate Matter less than 10 microns (PM10)	23.8
Particulate Matter less than 2.5 microns (PM2.5)	16.1
Sulfur Dioxide (SO ₂)	0.5
Volatile Organic Compounds (VOCs)	799.6

The Hazardous Air Pollutant emissions for this facility are not required to be calculated on an annual basis:

Pollutant	Tons per Year
Total Hazardous Air Pollutants (HAPs)**	Not Calculated

**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 Wayne County, which is currently designated by the U.S. Environmental Protection Agency (USEPA) as attainment/unclassified for all criteria pollutants except for Ozone and 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 of Volatile Organic Compounds exceeds 100 tons per year; the potential to emit of any single HAP regulated by Section 112 of the federal Clean Air Act, 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.

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.

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-PHOSPHATE, 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.

EU-REVCEMERGENS 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 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-DDMPEMERGENS 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.

EU-DEPEMERGENS 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 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.

Section 1 of the Ford Rouge Complex was issued a Violation notice on October 14, 2016 for failure to maintain air pollution control equipment for EU-GUIDECOAT, failed to maintain replacement parts required by the Operation and Maintenance Plan for FG-CONTROLS, and failed to maintain FG-CONTROLS in a satisfactory manner. Ford Motor Company entered into Consent Order 19-2017 on December 13, 2017. The consent order required revisions to their Operations and Maintenance Plan (OMP), submittal of maintenance and repair records in accordance with their OMP, revisions to their

Malfunction Abatement Plan was approved on August 31, 2017 and since the effective date of consent order 19-2017 Ford Motor Company is required to comply with their revised OMP and MAP. On October 17, 2019 an additional Violation Notice was sent to Ford Motor Company for failure to provide notice of an abnormal condition or malfunction continuing more than 2 hours. Stipulated penalties were assessed and paid as a result of this violation. Currently, Ford Motor Company continues to comply with Consent Order 19-2017 and is considered a resolution to the October 2016 and October 2019 Violation Notices as well as the December 13, 2017 Consent Order. No further compliance schedule is required at this time.

The AQD's Rules 287 and 290 were revised on December 20, 2016. FGRULE287(2)(c) and FGRULE290 are flexible group tables created for emission units subject to these rules. Emission units installed before December 20, 2016, can comply with the requirements of Rule 287 and Rule 290 in effect at the time of installation or modification as identified in the tables. However, emission units installed or modified on or after December 20, 2016, must comply with the requirements of the current rules as outlined in the tables.

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 following Emission Units/Flexible Groups are subject to CAM:

Emission Unit/Flexible group ID	Pollutant/ Emission Limit	UAR(s)	Control Equipment	Monitoring (Include Monitoring Range)	Emission Unit/Flexible Group for CAM	PAM?*
FG-FACILITY	897 tpy	R336.1225, R336.1702(a), R336.1901, 40 CFR 52.21	RTO and 2 Concentrators	RTO: 1400 degrees Fahrenheit or the temperature of the most recent acceptable performance test. Concentrator: no more than 15 degrees Fahrenheit below the temperature of the most recent acceptable performance test.	FG-CONTROLS	No
FG-FACILITY	4.8 pounds per job	R336.1225, R336.1702(a), R336.1901, 40 CFR 52.21	RTO and 2 Concentrators	RTO: 1400 degrees Fahrenheit or the temperature of the most recent	FG-CONTROLS	No

Emission Unit/Flexible group ID	Pollutant/Emission Limit	UAR(s)	Control Equipment	Monitoring (Include Monitoring Range)	Emission Unit/Flexible Group for CAM	PAM?*
				acceptable performance test. Concentrator: no more than 15 degrees Fahrenheit below the temperature of the most recent acceptable performance test.		

*Presumptively Acceptable Monitoring (PAM)

The average RTO combustion chamber temperature and the concentrator inlet desorption gas temperature were both selected because they are indicative of the VOC destruction occurring within the RTO and VOC removal occurring in the concentrators and are both widely accepted methods of monitoring. If the chamber temperature decreases significantly, then complete combustion may not occur, reducing the destruction efficiency. Therefore, the requirement to monitor temperature and maintain appropriate records is a justification for assuring VOC destruction efficiency. If the inlet desorption temperature decreases significantly, then proper VOC removal cannot take place, reducing the removal efficiency. Therefore, the requirement to monitor temperature and maintain appropriate records is a justification for assuring VOC removal efficiency. Temperature monitoring is specifically identified in the monitoring/recordkeeping requirements under the ROP flexible group, FG-CONTROL-S1.

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 containing emission units and flexible groups which are included in the Source-Wide PTI, that were incorporated into previous ROPs. PTIs issued after the effective date of ROP No. MI-ROP-A8648-2015a 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	101-19a	154-19	126-14
94-16			

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	I.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	I.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.
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

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
EU-MAINTPAINT – Section 2	Maintenance paint booth.	212(4)(e)	Rule 287(2)(c)
EU-NATGASGEN – Section 4	60 HP natural-gas fired emergency generator located in SW corner of facility.	212(4)(e)	Rule 285(2)(g)
EU-RCSSMDFGENER – Section 5	MDF Generator (natural gas, 96 HP).	212(4)(e)	Rule 285(2)(g)
EU-DYKEMRED – Section 6	Layout fluid (Red) used on aluminum to identify defects on Class A surfaces.	212(4)(g)	Rule 290
EU-DYKEMBLUE – Section 6	Layout fluid (Blue) used to identify defects on Class A surfaces.	212(4)(g)	Rule 290
EU-INKMARK – Section 6	Ink marking.	212(4)(g)	Rule 290
EU-BEECHEM – Section 6	Layout fluid to identify defects on Class A surfaces.	212(4)(g)	Rule 290
EU-LAYOUTFINISH – Section 6	Layout finishing fluid used for maintenance on East Assembly Area.	212(4)(g)	Rule 290
EU-ETHANOL – Section 6	Lubricant for steel coils entering blanker.	212(4)(g)	Rule 290
EU-BONDERITE – Section 6	Highlighting wipe to identify defects on Class A surfaces.	212(4)(g)	Rule 290

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 Dr. April Wendling, 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
A8648

RENEWABLE OPERATING PERMIT
March 25, 2022 STAFF REPORT ADDENDUM

ROP Number
MI-ROP-A8648-2022

Purpose

A Staff Report dated January 17, 2022, 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:	Ms. Corey Williams, Plant Manager - Section 1 Dearborn Paint Shop & Vehicle Assembly Plant 313-673-2616 Mr. Frank S. Piazza, Plant Manager - Section 2 Dearborn Diversified Manufacturing Plant 313-322-7723 Mr. Nadeem Zaidi, Plant Manager - Section 3 Dearborn Engine Plant 313-322-6810 Mr. Frank S. Piazza, Plant Manager - Section 4 Dearborn Stamping Plant 313-322-7723 Ms. Melissa Bogema, Site Manager - Section 5 Dearborn Site Services 313-215-9729 Mr. Jeff Wagner, Plant Manager - Section 6 Dearborn Tool and Die Plant 313-845-8364
AQD Contact:	Robert Byrnes, Senior Environmental Engineer 517-275-0439

Summary of Pertinent Comments

Changes to the January 17, 2022 Draft ROP

EPA Comment: EPA made various comments throughout the Draft ROP document which were all of the typographical nature.

AQD Response: AQD corrected all typographical errors throughout the Draft ROP.

Ford Motor Company Comment: Ford provided an updated version of the Fugitive Dust Control Plan and updated Rouge Site Map to be included in Appendix 4-5.

AQD Response: AQD included the updated Fugitive Dust Plan and Rouge Site Map.