

State Registration Number
B3350

**RENEWABLE OPERATING PERMIT
STAFF REPORT**

ROP Number
MI-ROP-B3350-2022

FCA US LLC - Trenton Engine Complex

State Registration Number (SRN): B3350

Located at

2300 Van Horn Road, Trenton, Wayne County, Michigan 48183

Permit Number: MI-ROP-B3350-2022

Staff Report Date: June 7, 2021

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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RENEWABLE OPERATING PERMIT

ROP Number

MI-ROP-B3350-2022

June 7, 2021 - 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:	FCA US LLC Trenton Engine Complex 1000 Chrysler Drive Auburn Hills, Michigan 48326
Source Registration Number (SRN):	B3350
North American Industry Classification System (NAICS) Code:	336312
Number of Stationary Source Sections:	1
Is Application for a Renewal or Initial Issuance?	Renewal
Application Number:	201800082
Responsible Official:	LaMarcus Keels, Plant Manager 734-783-8519
AQD Contact:	Sam Liveson, Environmental Engineer 313-405-1357
Date Application Received:	June 22, 2018
Date Application Was Administratively Complete:	July 5, 2018
Is Application Shield in Effect?	Yes
Date Public Comment Begins:	June 7, 2021
Deadline for Public Comment:	July 7, 2021

Source Description

FCA US LLC (FCA) owns and operates the Trenton Engine Complex (TEC) located at 2300 Van Horn Road, Trenton, Wayne County, Michigan. The facility consists of two contiguous engine manufacturing operations (Trenton Engine [North] Plant and Trenton South Plant). Processes include machining, assembly, and testing of automotive engines.

TEC operates five gasoline engine dynamometers; two natural gas fired engine hot test stands (FCA notified AQD on October 29, 2019 that the third hot test stand is no longer in use and has been removed from the facility); two boilers; three emergency generators; miscellaneous combustion equipment (heating and ventilation units, heaters, hot water generators, steam generators); wet machining equipment (boring, grinding using various cutting oils and lubricants); and dry machining (boring, grinding) equipment.

The Trenton South Plant encompasses 822,000 square feet, while the Trenton Engine Plant encompasses 2.1 million square feet. The boundaries of the facility are as follows. To the south is the Trenton Wastewater Treatment Plant; to east is a storage yard and residential area; to the southwest is a commercial business (landscaping/nursery); to the west is a storage yard and residential areas; and to the immediate north is green space.

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)	109.9
Lead (Pb)	0
Nitrogen Oxides (NO _x)	22.1
Particulate Matter (PM)	7.6
Sulfur Dioxide (SO ₂)	0.3
Volatile Organic Compounds (VOCs)	13.9
Individual Hazardous Air Pollutants (HAPs) **	NA
Total Hazardous Air Pollutants (HAPs)	NA

**As listed pursuant to Section 112(b) of the federal Clean Air Act.

Since the facility is a true minor source of HAPs, no HAP emission data were included in the 2019 MAERS emission inventory report (and none were required by the Air Quality Division to be reported).

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 Wayne County, which is currently designated by the United States Environmental Protection Agency (USEPA) as a non-attainment area with respect to the 8-hour ozone standard.

The stationary source is also within a portion of Wayne County currently designated by the United States Environmental Protection Agency (USEPA) as a non-attainment area with respect to the SO₂ standard.

The stationary source is subject to Title 40 of the Code of Federal Regulations (CFR) Part 70, because the potential to emit of carbon monoxide 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.

No emission units at the stationary source have been subject to the Prevention of Significant Deterioration (PSD) regulations of Part 18, Prevention of Significant Deterioration of Air Quality of Act 451, because at the time of New Source Review (NSR) permitting the potential to emit of carbon monoxide was less than 250 tons per year, or the potential to emit of each subsequent modification was below major modification thresholds. However, the facility is currently a major stationary source under PSD due to the facility wide potential emissions of carbon monoxide greater than 250 tons per year. Emission units at the stationary source have been subject to minor NSR permitting.

EU-EMENG_IWTP and EU-GAS_TANK1 were installed prior to August 15, 1967. As a result, this equipment is considered "grandfathered" and is not subject to New Source Review (NSR) permitting requirements. However, future modifications of this equipment may be subject to NSR.

There are no New Source Performance Standards-subject sources at the facility.

EU-FIRE_PUMP1 and EU-FIREPUMP-2 at the stationary source are not subject to the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines promulgated in 40 CFR Part 60, Subparts A and IIII because the date of the installation is prior to the affected date.

EU-EMENG_IWTP at the stationary source is not subject to the Standards of Performance for Stationary Spark Ignition Internal Combustion Engines promulgated in 40 CFR Part 60, Subparts A and JJJJ because the date of the installation is prior to the affected date.

EU-FIRE_PUMP1, EU-FIRE_PUMP2, and EU-EMENG-IWTP at the stationary source are subject to the National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines promulgated in 40 CFR Part 63, Subparts A and ZZZZ. The AQD is not delegated the regulatory authority for this area source MACT.

EU-GAS_TANK1 and EU-GAS_TANK2 at the stationary source are subject to the National Emission Standard for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities promulgated in 40 CFR Part 63, Subparts A and CCCCC. The AQD is not delegated the regulatory authority for this area source MACT.

EU-BOILER1 and EU-BOILER5 at the stationary source are subject to the National Emission Standard for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources promulgated in 40 CFR Part 63, Subparts A and JJJJJJ. The AQD is not delegated the regulatory authority for this area source MACT.

EU-DYNO1, EU-DYNO2, EU-DYNO3, EU-DYNO4, and EU-DYNO5 at the stationary source are not subject to the National Emission Standard for Hazardous Air Pollutants for Engine Test Cells/Standards promulgated in 40 CFR Part 63, Subparts A and PPPPP because the facility is not a major source of HAPs.

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."

No emission units have emission limitations or standards that are subject to the federal Compliance Assurance Monitoring rule pursuant to 40 CFR Part 64, because all emission units at the stationary source

either do not have a control device or those with a control device do not have potential pre-control emissions over the major source thresholds. FG-OTHER MACHINING LINES processes are exempt from obtaining a Permit to Install, so each machining line's potential pre-control emission rate is below major source thresholds. FG-WETMACHINE processes are maintained with oil mist collectors. The oil mist collectors serve as a control device to limit particulate matter emissions. The potential pre-control emissions are below major source thresholds of 100 tons per year of particulate matter.

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-B3350-2014 are identified in Appendix 6 of the ROP.

PTI Number			
179-99D			

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

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 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
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RENEWABLE OPERATING PERMIT
November 15, 2021 - STAFF REPORT ADDENDUM

ROP Number
MI-ROP-B3350-2022

Purpose

A Staff Report dated June 7, 2021, 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:	LaMarcus Keels, Plant Manager 734-783-8519
AQD Contact:	Sam Liveson, Environmental Engineer 313-405-1357

Summary of Pertinent Comments

1. US EPA Region 5 made the following comment:

EPA Comment: Under FG-WETMACHINE in Condition IV(1) it states, “The permittee shall not operate FG-WETMACHINE unless the oil mist collectors are installed, maintained, and operated in a satisfactory manner.” However, there is no description, definition or indication of what satisfactory manner means or how to achieve it. There should be a reference to the PMP/MAP with specific language on how to determine compliance with the limits established in the permit.

AQD Response: FG-WETMACHINE Condition IV(1) originates from Permit to Install (PTI) No. 95-07A. The condition has not been altered from this PTI. As a rule, AQD does not modify ROP conditions that originate from PTIs. In order to modify this condition, PTI 95-07A would have to be changed, and the updated PTI would be rolled into the ROP.

FG-WETMACHINE Condition III.1 requires implementation and maintenance of the malfunction abatement plan (MAP). The facility’s MAP discusses filter static pressures as the variables to monitor to detect a malfunction or failure; monitoring procedures in the “Activity & Frequency Matrix” for mist collectors and dust collectors; and inches of water at which to replace filters or shut down the units.

This staff report addendum serves to explain that “installed, maintained, and operated in a satisfactory manner” in Condition IV.1 means implementing and maintaining the MAP as required in Condition III.1.

FG-WETMACHINE Condition III.1 is below:

- III.1. The permittee shall not operate FG-WETMACHINE unless a malfunction abatement plan (MAP) as described in Rule 911(2), for the oil mist collectors, has been submitted within 45 days of permit issuance, and is implemented and maintained. If, at any time, the MAP fails to address or inadequately addresses an event that meets the characteristics of a

malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. (R 336.1910, R 336.1911)

Per Rule 911(2),

- (2) A malfunction abatement plan required by subrule (1) of this rule shall be in writing and shall, at a minimum, specify all of the following:
 - (a) A complete preventative maintenance program, including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.
 - (b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.
 - (c) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

2. AQD made the following comment:

AQD Comment: As a result of a discussion with USEPA and FCA regarding fuel oil conditions in FG- BLR1&BLR5, FCA clarified that the diesel fuel line and diesel fuel tank associated with FG- BLR1&BLR5 have been removed. Accordingly, AQD determined that conditions related to firing diesel fuel are void per Rule 201(5). Rule 201(5) states in part, "Upon the physical removal of the process or process equipment, or upon a determination by the department that the process or process equipment has been permanently shut down, the permit to install shall become void..."

AQD Response: AQD will remove conditions and descriptions related to firing diesel fuel from FG- BLR1&BLR5.

3. FCA made the following comment regarding FG-GAS-DISP, special condition VI.1:

FCA Comment: This is unduly restricting us. The facility is allowed to use 135,000 gallons of gasoline yearly, which means that the 10,000 gallons/month of gasoline will be exceeded.

AQD Response: AQD recognizes that FG-GAS-DISP, special condition VI.1, as written, is ambiguous. The condition suggests the gasoline throughput is limited to 10,000 gallons per month, when actually, throughput may be less than 10,000 gallons gasoline or less than 100,000 gallons of gasoline per month. AQD will update special condition VI.1 to clarify the recordkeeping requirement.

4. FCA made the following comment regarding FG-DYNOS, special conditions V.1-3:

FCA Comment: These terms here do not clearly discuss the frequency of the testing. Typically, we have one test every permit cycle. However, as written here, it is conceivable we can do one test every five years, and have to do a second test 180 days after the issuance of a renewal permit. This could subject us to two tests in a permit cycle when EGLE does not renew our permit on time.

AQD Response: Special condition V.2 specifies frequency of testing. AQD believes the condition is clear. However, AQD will modify the condition to include the name of this specific ROP in the condition to clarify that testing is required within the specified number of days of issuance of this permit. The same modification will occur to FG-BLR1&BLR5, special condition V.2, because it has a similar requirement for testing.

Changes to the June 7, 2021 Draft ROP

The following changes were made to the June 7, 2021 Draft ROP:

Emission Unit Summary Table

1. Emission Unit Description for EU-BOILER1 and EU-BOILER5 by removing “and distillate oil” from the descriptions. The updated descriptions now read “60 MMBTU/hr natural gas-fired boiler. Located at the Trenton Engine Plant.” And “180 MMBTU/hr natural gas-fired boiler. Located at Trenton Engine Plant.” respectively.

Flexible Group Summary Table

1. Update Description for FG-BLR1&BLR5 by removing “and distillate oil” from the description. The updated description now reads “Two natural gas-fired boilers rated at 60 MMBTU/hr and 180 MMBTU/hr.”

FG-DYNOS

1. Testing/Sampling – Update the first phrase in condition V.2 to read, “Within 180 days of the effective date of MI-PTI-B3350-20XX”. The original phrase read, “Within 180 days of permit issuance”.

FG-BLR1&BLR5

1. Update Description by removing “and distillate oil” from the description. The updated description now reads “Two natural gas-fired boilers rated at 60 MMBTU/hr and 180 MMBTU/hr.”
2. Emission Limit(s) – Deleted SC I.2, I.4, I.6, and I.7 to remove emission limits for burning distillate oil.
3. Material Limit(s) – Deleted SC II.1 to remove the No. 2 fuel oil gallon limit.
4. Process/Operational Restriction(s) – Deleted SC III.1 to remove the No. 2 fuel oil sulfur content requirement. Deleted SC III.2 to remove the requirement to burn only natural gas or virgin No. 2 fuel oil.
5. Testing/Sampling – Update the first phrase in condition V.2 to read, “Within 365 days of the effective date of MI-PTI-B3350-20XX”. The original phrase read, “Within 365 days of permit issuance”.
6. Testing/Sampling – Deleted SC V.4 to remove the distillate oil stack testing requirement.
7. Monitoring/Recordkeeping – Deleted SC VI.3 to remove monthly monitoring of No. 2 fuel usage.
8. Monitoring/Recordkeeping – Deleted SC VI.4 to remove the recording of hours burning liquid fuel.

9. Other Requirement(s) – Deleted IV.1 to remove the 40 CFR Part 63 Subpart JJJJJJ requirement for combusting liquid fuel.

FG-GAS-DISP

1. Monitoring/Recordkeeping –SC VI.1.a is revised as follows:

Draft Condition:

1. **Record of Gasoline Throughput**

- a. A record of gasoline throughput is necessary to be able to demonstrate that monthly throughput is less than 10,000 gallons and such record must be made available to USEPA or to EGLE within 24 hours of a request. **(40 CFR 63.11116(b))**

Proposed Condition:

1. The permittee shall keep records of the monthly throughput of gasoline through FG-GAS-DISP. Records of the monthly throughput must be available within 24 hours of a request by the administrator to document your gasoline throughput. **(40 CFR 63.11116(b), 40 CFR 63.11117(d))**

Appendix 6

1. In the first row of the table, include ROP revision number “202100064” as the application that incorporated PTI 95-07A into the ROP.