

State Registration  
Number  
N1436

**RENEWABLE OPERATING PERMIT  
STAFF REPORT**

ROP Number  
MI-ROP-N1436-2018a

**FCA US LLC – Chrysler Technology Center**

SRN: N1436

Located at

800 Chrysler Drive, Auburn Hills, Oakland County, Michigan 48326-2757

Permit Number: MI-ROP-N1436-2018

Staff Report Date: July 30, 2018

Amended Dates: August 29, 2022  
October 6, 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) 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

N1436

**RENEWABLE OPERATING PERMIT**

**JULY 30, 2018 - STAFF REPORT**

ROP Number

MI-ROP-N1436-2018

**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:	FCA US LLC – Chrysler Technology Center 800 Chrysler Drive Auburn Hills, Michigan 48326-2757
Source Registration Number (SRN):	N1439
North American Industry Classification System (NAICS) Code:	336111
Number of Stationary Source Sections:	2
Is Application for a Renewal or Initial Issuance?	Renewal
Application Number:	201700110
Responsible Official Section 1	Didier Papin, Director Facilities 248-944-6229
Responsible Official Section 2	Mark Cerny, Director Powertrain 248-944-2555
AQD Contact:	Kerry Kelly, Environmental Quality Analyst 586-506-9817
Date Application Received:	August 17, 2017
Date Application Was Administratively Complete:	August 17, 2017
Is Application Shield in Effect?	Yes
Date Public Comment Begins:	July 30, 2018
Deadline for Public Comment:	August 29, 2018

## Source Description

Research and development for automobile, light duty truck, and vehicle component manufacturing takes place at FCA Tech Center. Operations and equipment include: dynamometer test stands used for engine and engine component testing, manufacturing and assembly pilot processes, and various lab activities. The Central Energy Plant (Section 1) provides steam and back-up emergency electrical power to both the technology center and the headquarters. Construction of FCA Tech Center at this site began between 1987 and 1988. The buildings that house the equipment cover approximately one and a half square miles of land. Based on information provided by FCA, placement of the first set of boilers and dynamometers at the facility occurred in about 1989 and 1990 respectively.

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)	294
Lead (Pb)	NA
Nitrogen Oxides (NO <sub>x</sub> )	165
Particulate Matter (PM)	10.8
Sulfur Dioxide (SO <sub>2</sub> )	9.7
Volatile Organic Compounds (VOCs)	32

The following table lists Hazardous Air Pollutant emissions as calculated for the year 2017 by FCA US LLC:

<b>Individual Hazardous Air Pollutants (HAPs) **</b>	<b>Tons per Year</b>
<b>Total Hazardous Air Pollutants (HAPs)</b>	<b>10.1</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 Oakland 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 all criteria pollutants exceeds 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.

FG-CNTRLDCELLS and FG-UNCNTRLDCELLS at the stationary source were subject to review under the Prevention of Significant Deterioration regulations of 40 CFR 52.21, because at the time of New Source Review permitting the potential to emit of carbon monoxide and nitrogen oxides were greater than 250 tons per year.

Although EU-FIREPUMP-1 and EU-FIREPUMP-2 were installed after August 15, 1967, this equipment was exempt from New Source Review (NSR) permitting requirements at the time it was installed. However, future modifications of this equipment may be subject to NSR.

#### FG-TESTCELLSA: NSR and PSD BACKGROUND

Based on building permits and other information provided by FCA, it appears commencement of construction, as defined in R336.2901(j) & 40 CFR 51.165(a)(1)(xvi), of FG -TESTCELLSA began in October 1990. Although FG-TESTCELLSA was installed after August 15, 1967, this equipment was exempt from New Source Review (NSR) permitting requirements at the time it was installed per R 336.1285(d) (currently R 336.1285(2)(g)). Future modifications of this equipment may be subject to NSR.

Though the potential to emit for all dynamometers in FG-TESTCELLSA is more than 250 tons/year of carbon monoxide (CO), FG-TESTCELLSA is not subject to the Prevention of Significant Deterioration (PSD) (40 CFR 52.21) regulations and R 336.1278 per an interoffice communication dated October 7, 1996 from Robert Rusch, Strategy Development Unit (DEQ-AQD). According to the interoffice memo, in May 1980, "USEPA did not condition its approval of Rule 285 and did grant authority to the State to implement the PSD program in Michigan. Therefore, the 285 dynamometer exemption applied to both the NSR and PSD requirements until 1993." In 1993, Michigan promulgated R 336.1278 which states that the exemptions from NSR permitting do not apply either of the following: (a) any activity that is subject to prevention of significant deterioration of air quality regulations or new source review for major sources in nonattainment areas regulations or (b) any activity that results in an increase in actual emissions greater than the significance levels defined in R 336.1119. Given that the information provided by FCA suggests commencement of construction of FG-TESTCELLSA occurred prior to 1993, FG-TESTCELLSA are exempt from the requirement to obtain a permit to install and not subject to PSD review per R 336.1285(d). In the renewal application for Section 2 of the ROP, FCA indicated that no emission units in the existing ROP have been modified or reconstructed that required a PTI. However, future modifications of this equipment may be subject to NSR.

EU-12HWG-1.05, EU-12HWG-1.06, EU-12HWG-1.07 at the stationary source are subject to the Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units promulgated in 40 CFR Part 60, Subparts A and Dc.

FG-GASTANKS at the stationary source is subject to the Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984 Units promulgated in 40 CFR Part 60, Subparts A and Kb.

FG-BOILERMACT 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.

FG-EMERGENCY-RICE at the stationary source is 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.

FG-ENGPAINSHOP was not subject to CAA Section 112(g) after the effective date of the Title V permitting program in Michigan and after the date for the promulgation of emission standards for Surface Coating of Miscellaneous Metal Parts and Products and Plastic Parts and Products (Surface Coating) (11/15/2000) because the installation, in and of itself, did not constitute a major source of HAP emissions due to synthetic minor HAP emission limits for FG-ENGPAINSHOP. In 2004, the promulgation of MACT standards by the Administrator for Surface Coating of Miscellaneous Metal Parts (40 CFR 63 Subpart MMMM) and Products and Surface Coating of Plastic Parts and Products (40 CFR 63 Subpart PPPP) superseded case-by-case MACT standards for miscellaneous metal or plastic surface coating processes.

FG-ENGPAINSHOP is not subject to 40 CFR 63 Subpart M and 40 CFR 63 Subpart P standards per 40 CFR 63.3881(c)(2) and 40 CFR 63.4880(c)(2) respectively because the process involves surface coating operations that occur at research or laboratory facilities, or is part of janitorial, building, and facility maintenance operations.

The MDEQ, AQD revised R 336.1287 and R 336.1290 on December 20, 2016. The revised rules, specifically R 336.1287(2)(c) and R 336.1290, have some requirements that are more detailed compared to the earlier versions. FG-RULE287(2)(c) and FG-RULE290 are flexible group requirement tables created for emission units subject to R 336.1287(2)(c) and R 336.1290, respectively. 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. However, emission units installed or modified after December 20, 2016, must comply with the requirements of the current rules.

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 limitation(s) or standard(s) for carbon monoxide (CO) and volatile organic compounds (VOC) from FG-CNTRLDCELLS 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 carbon monoxide greater than the major source threshold level.

Emission Unit ID	Pollutant/ Emission Limit	UAR(s)	Control Equipment	Monitoring	Presumptively Acceptable Monitoring?
CO	0.01 pounds/gal	40 CFR 52.21(j)	Thermal Oxidizer	Temperature	No
CO	20.8 tons/year	40 CFR 52.21(j)	Thermal Oxidizer	Temperature	No
VOC	0.006 pounds/gal	40 CFR 52.21(j)	Thermal Oxidizer	Temperature	No
VOC	12.5 tons/year	40 CFR 52.21(j)	Thermal Oxidizer	Temperature	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-N1436-2013 are identified in Appendix 6 of the ROP.

PTI Number			
633-86E	258-91B	355-95A	405-95E

**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>
EU-PT-B-5.01	Natural gas-fired boiler with a heat input of 8.37 BTU/hour	Rule 212(4)(c)	Rule 282(2)(b)(i)
EU-PT-B-5.02	Natural gas-fired boiler with a heat input of 8.37 BTU/hour	Rule 212(4)(c)	Rule 282(2)(b)(i)
EU-ALTSTAND	One engine dynamometer test stand utilized for high-altitude engine testing	Rule 212(4)(e)	Rule 285(2)(g)

### **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 Joyce Zhu, Southeast Michigan 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**  
**SEPTEMBER 11, 2018 - STAFF REPORT**  
**ADDENDUM**

ROP Number  
MI-ROP-N1436-2018

**Purpose**

A Staff Report dated July 30, 2018 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 Section 1:	Didier Papin, Director Facilities 248-944-6229
Responsible Official Section 2:	Mark Cerny, Director Powertrain 248-944-2555
AQD Contact:	Kerry Kelly, Environmental Quality Analyst 586-506-9817

**Summary of Comments regarding the July 30, 2018 Draft Staff Report**

Ms. Liz Carson, consultant for FCA USA LLC – Chrysler Technology Center, made the following comments regarding the Draft Staff Report:

1. In the “Source Description” section of the Draft Staff Report, the facility name should be FCA USA LLC - Chrysler Technology Center, not FCA Tech Center.
2. Boilers EU-PT-B-5.01 and EU-PT-B-5.02 are listed as processes not subject to any process-specific emission limits or standards in any applicable requirement in the “Processes in the Application Not Identified in Draft ROP”, however, there are requirements pertaining to EU-PT-B-5.01 and EU-PT-B-5.02 in the ROP under FG-BOILERMACT.

**Response to Comments regarding the July 30, 2018 Draft Staff Report**

The comments made by Ms. Carson are accurate. Corrections are noted in the Staff Report Addendum. No changes were made to the July 30, 2018 Draft Staff Report.

**Changes to the July 30, 2018 Draft ROP**

No changes were made to the draft ROP.

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**RENEWABLE OPERATING PERMIT**  
**AUGUST 29, 2022 - STAFF REPORT FOR RULE**  
**216(3) SIGNIFICANT MODIFICATION**

ROP Number  
MI-ROP-N1436-2018a

**Purpose**

On October 30, 2018 the Department of Environment, Great Lakes, and Energy (EGLE), Air Quality Division (AQD), approved and issued Renewable Operating Permit (ROP) No. MI-ROP-N1436-2018 to FCA US LLC - Chrysler Technology Center 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(3).

**General Information**

Responsible Official Section 2:	Lisa Lortie, Director Powertrain 248-576-1356
AQD Contact:	Caryn Owens, Senior Environmental Engineer 231-878-6688
Application Number:	202200058
Date Application for Significant Modification was Submitted:	March 22, 2022
Date Public Comment Begins:	August 29, 2022
Deadline for Public Comment:	September 28, 2022

**Regulatory Analysis**

The AQD has determined that the change requested by the stationary source meets the qualifications for a Significant Modification pursuant to Rule 216(3).

PTI No. 155-18 was not required to go through the public participation process, but it is incorporated into the ROP as a Significant Modification since the PTI included a fuel restriction to the material limits of FG-CNTRLDCELLS to keep emission below major modification levels.

**Description of Changes to the ROP**

Significant Modification No. 202200058 was to incorporate PTI No. 155-18 into Section 2 of the ROP, which was to add simulation testing capabilities to 9 test cells (11 test stands) and to change pound/gallon (lb/gallon) emission limits to pound/hour (pph) emission limits. A clarification of allowed fuels was also included in the processing. A new CAM Plan and MAP were included with the Significant Modification Application.

PTI No. 155-18 added optional scenarios to the Emission Limits and Material Limits and Monitoring/Recordkeeping requirements for FG-CNTRLDCELLS. One scenario contains the existing lb/gallon limits, and the other scenario contains new pph limits and the associated gallons/hour restriction.

FG-UNCNTRLDCELLS is unaffected by the modification, it was only pulled in for some administrative changes.

**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>
FG-CNTRLDCELLS and FG-UNCNTRLDCELLS	SC VI.7 and SC VI.11	FCA US LLC - Chrysler Technology Center objects to SC VI.7 in FG-CNTRLDCELLS and SC VI.11 in FG-UNCNTRLDCELLS, stating that these are new added conditions to maintain a list of the size dynamometer for each test stand, and believe adding these Conditions are in direct conflict with the content and intention of the permit to install's negotiations, which stated "it was a one-time report of a list of what they already had installed so that it would be clear to the AQD what each emission unit was."  AQD's rationale for adding this condition is to maintain the list to show continuous compliance with what was evaluated at the time of permitting for the flexible groups.

**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 significant modification to the ROP.

**Action Taken by EGLE**

The AQD proposes to approve a Significant Modification to ROP No. MI-ROP-N1436-2018, as requested by the stationary source. A final decision on the Significant Modification to the ROP will not be made until the public and any affected states have had an opportunity to comment on the proposed changes to the ROP 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 significant 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 the public, any affected states or the USEPA.

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## RENEWABLE OPERATING PERMIT

ROP Number

MI-ROP-N1436-2018a

### OCTOBER 6, 2022 - STAFF REPORT FOR RULE 216(3) SIGNIFICANT MODIFICATION

#### Purpose

On October 30, 2018, the Department of Environment, Great Lakes, and Energy, Air Quality Division (AQD), approved and issued Renewable Operating Permit (ROP) No. MI-ROP-N1436-2018 to FCA US LLC - Chrysler Technology Center pursuant to Rule 214 of the administrative rules promulgated under Act 451. Once issued, the AQD is required to modify the ROP if the criteria described in Rule 216(3) are met. Only those conditions to be added or changed in the ROP are to be considered during this public comment period. The purpose of this Staff Report is to describe the changes that were made to the ROP following the 30-day public comment period.

#### General Information

Responsible Official:	Lisa Lorte, Director Powertrain 248-576-1356
AQD Contact:	Caryn Owens, Senior Environmental Engineer 231-878-6688

#### Summary of Pertinent Comments

The following is a summary of the comments received during the 30-day public comment period from FCA US LLC - Chrysler Technology Center.

##### FCA US LLC Comment 1:

Regarding Section 2 – Scientific Labs in the ROP, in Flexible Groups FG-CNTRLDCELLS Special Condition (SC) VI.7 (sc, should be “9”) and FG-UNCNTRLDCELLS SC VI.11.

*“The permittee shall maintain a record of the size of the dynamometer used for each test stand in each test cell in acceptable format. (R 336.1213(3))”*

FCA US LLC is requesting removal of the noted special conditions from the ROP. These additional requirements pose an additional burden for the facility that was not agreed to during PTI negotiations and serve no clear purpose. The Staff Report for this permit action indicates the AQD is adding this condition to maintain the list to show continuous compliance with what was evaluated at the time of permitting for the flexible group. This justification presumes that the size of the dynamometer is directly related to the PTI emission limits, which it is not. For these reasons, FCA US LLC respectfully requests that these conditions be removed from the draft ROP.

##### AQD Response 1:

AQD corrected the error in numbering in Flexible Group FG-CNTRLDCELLS, Section VI: Monitoring/Recordkeeping. With respect to SC VI.9 in FG-CNTRLDCELLS and SC VI.11 in FG-UNCNTRLDCELLS these two Conditions shall remain in the ROP. Those conditions are necessary to ensure practical enforceability with the Flexible Group as permitted and assure the emission unit has not been unintentionally modified. Without this information, it is difficult to determine if the equipment and process on site are equivalent to the PTI review.

**Changes to the August 29, 2022 Draft ROP Significant Modification**

AQD updated the numbering errors in Section VI: Monitoring/Recordkeeping of FG-CNTRLDCELLS that were identified during the Draft ROP Significant Modification.