

Michigan Department of Environmental Quality
Air Quality Division

State Registration Number
N6327

**RENEWABLE OPERATING PERMIT
STAFF REPORT**

ROP Number
MI-ROP-N6327-2015

FEDERAL-MOGUL CORPORATION

SRN: N6327

Located at

47001 Port Street, Plymouth, Wayne County, Michigan 48170

Permit Number: MI-ROP-N6327-2015

Staff Report Date: May 18, 2015

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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MAY 18, 2015 STAFF REPORT

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Purpose

Major stationary sources of air pollutants, and some non-major sources, are required to obtain and operate in compliance with a 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 report, as required by Rule 214(1), sets forth the applicable requirements and factual basis for the draft permit terms and conditions including citations of the underlying applicable requirements, an explanation of any equivalent requirements included in the draft permit 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:	Federal-Mogul Corporation 47001 Port Street Plymouth, Michigan 48170
Source Registration Number (SRN):	N6327
North American Industry Classification System (NAICS) Code:	541380
Number of Stationary Source Sections:	1
Is Application for a Renewal or Initial Issuance?	Renewal
Application Number:	201400068
Responsible Official:	Terry Walter, Manager of Testing and Administration (734) 254-8291
AQD Contact:	Nazaret Sandoval, Environmental Engineer (313) 456-4680
Date Permit Application Received:	April 22, 2014
Date Application Was Administratively Complete:	April 22, 2014
Is Application Shield In Effect?	Yes
Date Public Comment Begins:	May 18, 2015
Deadline for Public Comment:	June 17, 2015

Source Description

Federal-Mogul Corporation, headquartered in Southfield, Michigan, is an automotive supplier with facilities worldwide. Federal-Mogul operates with two business divisions, Federal-Mogul Powertrain and Federal-Mogul Motorparts. Federal-Mogul Powertrain focuses on original equipment powertrain products for automotive, heavy-duty and industrial applications; Federal-Mogul Motorparts sells and distributes a broad portfolio of products in the global vehicle aftermarket. In 1997, T&N Industries built the T&N Technical Center in Plymouth. In 1998, two engine testing facilities moved their operations into the T&N Technical Center: McCord Payen from Wyandotte and AE Goetze from Muskegon. In 1998, Federal-Mogul bought out T&N and took over all facility operations. In 2010, Federal-Mogul Ignition Products, under the name Champion Spark Plugs, moved their developmental and testing operations from their Toledo facility to Plymouth. The facility located at 47001 Port Street, Plymouth, MI tests engines and engine components in dynamometer cells.

The facility is located in a light industrial area near M-14 and Beck Road. Currently, Federal-Mogul Corporation does testing for the Big 3 automakers as well as some small-engine manufacturers. The facility currently operates one shift, Monday through Friday (6:30 AM to 3:00 PM) and has about 160 employees.

Federal-Mogul Corporation is currently permitted for 16 engine test cells. Each of the test cells are equipped with fuel lines that can accommodate either gasoline, diesel, and E-85 fuels; however, there is one cell (Cell 13) that it is designated for small (2-cylinder) gasoline engines and ignition testing. All 16 cells are grouped together as one single flexible group (FG-ALLCELLS).

A variety of engines types and sizes are tested and testing can last for a few hours up to several hours in duration. The type of testing is specified by the clientele and could include: Durability Cycle Test, Deep Thermal Shock and Developmental Testing.

The test cells are supported by 2 multi-compartment steel underground storage tank (UST) that store motor fuels (gasoline, E85 or a combination of fuels). One of the tanks has two (2) 6,000 gallons compartments. The other tank is a 6,000 gallon UST with three (3) 2,000 gallon compartments. All tanks are grouped together as EU-GASOLINE_TANKS and under one flexible group (FG-NESHAP CCCCCC).

There are two (2) additional multi-compartment USTs with total capacities of 8,000 gallons and 6,000 gallons. The tanks are used for the storage of waste products, such as: used oil, used anti-freeze, "blow off"; and Diesel fuel. The 8,000 gallon tank is divided in two compartments; UST 5 (a 2,000 gallon blow-off tank) and UST 6 (6,000 gallon diesel tank). The 6,000 gallon tank has three 2,000 gallon compartments identified as UST 7, 8 and 9.

Emissions are controlled by an Air Injection Control System (AICS), which is required to be operated when gasoline is used as fuel and during Durability and Deep Thermal Shock testing. No controls are required for diesel fuel.

The following table lists stationary source emission information as reported to the Michigan Air Emissions Reporting System in the 2014 submittal.

TOTAL STATIONARY SOURCE EMISSIONS

Pollutant	Tons per Year
Carbon Monoxide (CO)	85.56
Nitrogen Oxides (NO _x)	15.09

Pollutant	Tons per Year
Particulate Matter (PM10)	1.14
Particulate Matter (PM2.5)	1.14
Sulfur Dioxide (SO ₂)	1.06
Total Organic Carbon (TOC)	1.17
Volatile Organic Compounds (VOCs)	1.20

In addition to the pollutants listed above that have been reported in MAERS, the potential to emit of Greenhouse Gases in tons per year of CO₂e is less than 100,000. CO₂e is a calculation of the combined global warming potentials of six Greenhouse Gases (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride).

See Parts C and D in the draft 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 (SO₂).

The stationary source is subject to Title 40 of the Code of Federal Regulations (CFR), Part 70, because the potential to emit carbon monoxide exceeds 100 tons per year.

The stationary source is considered to be a minor source of HAP emissions because the potential to emit of any single HAP regulated by the federal Clean Air Act, Section 112, is less than 10 tons per year and the potential to emit of all HAPs combined are less than 25 tons per year.

The stationary source is considered a “synthetic minor” source in regards to the Prevention of Significant Deterioration regulations of 40 CFR, PART 52.21 because the stationary source accepted legally enforceable permit conditions limiting the potential to emit of carbon monoxide to less than 250 tons per year.

The stationary source has emission units that were subject to R 336.1220 for Major Sources Impacting Nonattainment Areas at the time of New Source Review permitting.

Gasoline tanks associated with dynamometers cells for engine testing facilities are assumed to have been permitted with the dynamometer cells and it is assumed that the tanks were included in the same permit to install without having any process-specific emission limitation or any applicable requirements. That has been the case for the underground storage tanks EU-GASOLINE_TANKS at Federal Mogul.

EU-GASOLINE_TANKS are subject to a MACT standard under the National Emission Standard for Hazardous Air Pollutants (NESHAP) for Source Category: Gasoline Dispensing Facilities promulgated in 40 CFR, Part 63, Subparts A and CCCCC. EU-GASOLINE_TANKS at Federal Mogul were installed in 1996 and they were fully in service in 1998. Therefore, this source is an existing source because the commenced construction date for EU-GASOLINE_TANKS preceded November 9, 2006, the date specified on §63.11112 (d) for new affected sources. Federal Mogul must comply with the standards of Subpart CCCCC not later than January 10, 2011, with recordkeeping to document monthly throughput starting no later than January 24, 2011. The facility has always maintained records of fuel usage. The

records for the last four years, since 2011, show that the maximum monthly gasoline throughput has been below 10,000 gallons. Consequently, the applicable requirements for the gasoline tanks are those specified under §63.11116.

FG-ALLCELLS at the stationary source is subject to the federal Compliance Assurance Monitoring (CAM) rule under 40 CFR, Part 64. These emission units have a control device and potential pre-control emissions of carbon monoxide (CO) greater than the major source threshold level. An air injection control system (AICS) is used in all gasoline engine test cells to control CO and VOC emissions. The pre-control device potential VOC emissions from the unit are less than 100 tons per year. Proper operation of the AICS includes monitoring the cycle average exhaust temperature just upstream and downstream of the air injection point and the monitoring of the air injection rate. No controls are required for diesel fuel.

Special Condition V.1 –Testing/Sampling, for FG-ALLCELLS has been revised. The new approved language specifies that the “representative” number of test cells for stack testing shall be defined in the test plan and it is subject to AQD approval. This modification was approved pursuant to R 336.1216(2) throughout a Minor Modification to MI-ROP-N6327-2009 which incorporated PTI No. 368-97E into the ROP.

Terms and conditions for EU-SAFETYKLEEN and EU-BEARINGTESTER were incorporated into Section D of the ROP using the specific ROP templates for Flexible Groups (i.e. FG-COLD CLEANERS and FG-RULE 290). These exempt emission units were not included in the previous 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."

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-N6327-2009 are identified in Appendix 6 of the ROP.

PTI Number			
368-97B	368-97C	368-97D	NA

Streamlined/Subsumed Requirements

This permit does not include any streamlined/subsumed requirements pursuant to Rules 213(2) and 213(6).

Non-applicable Requirements

Part E of the draft ROP lists requirements that are not applicable to this source as determined by the AQD, if any were proposed in the application. These determinations are incorporated into the permit shield provision set forth in Part A (General Conditions 26 through 29) of the draft 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.

Exempt Emission Unit ID	Description of Exempt Emission Unit	Rule 212(4) Exemption	Rule 201 Exemption
EU-SPACEHEATERS	Rooftop Space Heaters	R.336.1212(4)(b)	R.336.1282(b)(i)
EU-UST 9	Used Antifreeze Storage	R.336.1212(4)(c)	R 336.1284 (i)

Draft ROP Terms/Conditions Not Agreed to by Applicant

This permit 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 DEQ

The AQD proposes to approve this permit. 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 U.S. Environmental Protection Agency (USEPA) is allowed up to 45 days to review the draft permit 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 permit 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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Purpose

A Staff Report dated May 18, 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:	Terry Walter, Manager of Testing and Administration (734) 254-8291
AQD Contact:	Nazaret Sandoval, Environmental Engineer (313) 456-4680

Summary of Pertinent Comments

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