

Michigan Department of Environmental Quality  
Air Quality Division

State Registration Number  
B2869

**RENEWABLE OPERATING PERMIT  
STAFF REPORT**

ROP Number  
MI-ROP-B2869-2011

Ford Motor Company - Romeo Engine Plant

SRN: B2869

Located at

701 E. 32 Mile Road, Romeo, Michigan 48065

Permit Number: MI-ROP-B2869-2011

Staff Report Date: May 9, 2011

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 9, 2011 STAFF REPORT**

**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:	Ford Motor Company 701 E. 32 Mile Road Romeo, Michigan 48065
Source Registration Number (SRN):	B2869
North American Industry Classification System (NAICS) Code:	3714
Number of Stationary Source Sections:	1
Is Application for a Renewal or Initial Issuance?	Renewal
Application Number:	201000105
Responsible Official:	Shaun Whitehead, Plant Manager 586-752-8025
AQD Contact:	Robert Byrnes, Senior Environmental Engineer 517-241-2182
Date Permit Application Received:	November 29, 2010
Date Application Was Administratively Complete:	December 10, 2010
Is Application Shield In Effect?	Yes
Date Public Comment Begins:	May 9, 2011
Deadline for Public Comment:	June 8, 2011

## Source Description

The Ford Motor Company, Romeo Engine Plant, manufactures several lines of automobile engines. Previously, this facility was known as the Romeo Tractor Plant 2; however, in 1989 the Ford Motor Company converted all operations to producing automobile engines. The primary operation at the facility includes machining of engine components such as engine blocks, engine heads, main bearing caps, crankshafts, and camshafts. In addition, this facility conducts engine assembly and engine testing, used for quality assurance. Two engine test cells are controlled by a thermal oxidizer and the test stands and the vents from the fuel delivery system are controlled by flares. Other processes at the facility include inking stations, cold cleaners, storage tanks, and a wastewater treatment plant.

The following table lists stationary source emission information as reported to the Michigan Air Emissions Reporting System in the **2009** submittal.

### **TOTAL STATIONARY SOURCE EMISSIONS**

<b>Pollutant</b>	<b>Tons per Year</b>
Carbon Monoxide (CO)	89.4
Lead (Pb)	0.0
Nitrogen Oxides (NO <sub>x</sub> )	16.7
Particulate Matter (PM)	4.9
Sulfur Dioxide (SO <sub>2</sub> )	1.0
Volatile Organic Compounds (VOCs)	42.0
<b>Individual Hazardous Air Pollutants (HAPs) **</b>	<b>Not Calculated</b>
<b>Total Hazardous Air Pollutants (HAPs)</b>	<b>Not Calculated</b>

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

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 Macomb County, which is currently designated by the U.S. Environmental Protection Agency (USEPA) as attainment/unclassified for all criteria pollutants except particulate PM<sub>2.5</sub>.

Macomb County is currently designated by the U.S. Environmental Protection Agency (USEPA) as a non-attainment area with respect to the PM 2.5 standard.

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 subject to Prevention of Significant Deterioration of Title 40 of the Code of Federal Regulations, Part 52.21, regulations because its potential to emit for Carbon monoxide (CO) is greater than 250 tons per year.

FG-EMERGENCY RICE <500 HP at the stationary source are currently not subject to the New Source Performance Standards for Compression Ignition (CI) and Spark Ignition (SI) Internal Combustion Engines (ICE) promulgated in 40 CFR, Part 60, Subparts A and JJJJ and IIII. However, applicable

requirements for these two New Source Performance Standards have been included at the request of Ford Motor Company - Romeo Engine Plant in case they install New or reconstructed emergency CI or SI ICE.

FG-GASOLINE DISPENSING <10,000/MONTH and FG-GASOLINE DISPENSING >10,000 AND <100,000/MONTH at the stationary source is subject to the Maximum Achievable Control Technology Standards for Gasoline Dispensing Facilities promulgated in 40 CFR, Part 63, Subparts A and CCCCC.

FG-EMERGENCY RICE < 500 HP 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 61, Subparts A and ZZZZ.

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 are subject to the federal Compliance Assurance Monitoring rule under 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.

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-B2869-2006 are identified in Appendix 6 of the ROP.

PTI Number			
35-05	382-94	205-87A	205-87B
841-90	841-90A	883-92	278-99
278-99A	278-99B	461-99	125-01

### **Equivalent Requirements**

This permit does not include any equivalent requirements pursuant to Rule 212(5). Equivalent requirements are enforceable applicable requirements that are equivalent to the applicable requirements contained in the original PTI, a Consent Order/Judgment, and/or the State Implementation Plan.

### **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.

<b>Exempt Emission Unit ID</b>	<b>Description of Exempt Emission Unit</b>	<b>ROP Exemption</b>	<b>PTI Permit Exemption</b>
EU-DYNOS	Three 9 MMBTU/hr existing dynamometer test cells (#1, 2, and 3)	R336.1212(4)(d)	R336.1285(g)
EU-HEATERS	Natural gas fired heating units 320.83 MMBTU/hr total rating with an individual heat input of 49 MMBTU/hr	R336.1212(4)(b)	R336.1282(b)(i)
EU-PROPANE	Propane tanks	R336.1212(4)(c)	R336.1284(b)
FG-OTHER MACHINING LINES	Machining equipment and associated Coolant Collectors.	R336.1212(4)(d)	R336.1285(l)(vi)

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 Chris Ethridge, Acting Southeast Michigan 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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**June 19, 2011 STAFF REPORT ADDENDUM**

**Purpose**

A Staff Report dated May 9, 2011, 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:	Shaun Whitehead, Plant Manager 586-752-8025
AQD Contact:	Robert Byrnes, Senior Environmental Engineer 517-241-2182

**Summary of Pertinent Comments**

**Company Comment:**

**FG-205-87A - POLLUTION CONTROL EQUIPMENT:** The correct oil mist collector identification is "MOM1-MOM21, MOM31, and MOM35".

**AQD Response:**

The AQD has corrected the identifications.

**Company Comment:**

**FG-278-99B - VIII. STACK/VENT RESTRICTION(S):** The Maximum Exhaust Dimension for stack SVUST is incorrect. The correct value is 1.5", not 1.2".

**AQD Response:**

The previous ROP had the stack value listed as 1.5", the AQD has made the correction.

**Company Comment:**

**FG-GASOLINE DISPENSING <10,000/month - IX. OTHER REQUIREMENTS, 1. and FG-GASOLINE DISPENSING >10,000 AND <100,000/MONTH - IX. OTHER REQUIREMENTS, 1.:** The templates were developed to ensure compliance with the MACT Standard by identifying all of the requirements that are expected to be met. By adding this condition to the template, it is not clear what additional actions MDEQ expects Ford to undertake in order to be in compliance.

Ford believes that the templates developed for the Gasoline Dispensing MACT Standards (40 CFR Part 60, Subpart CCCCC) that are incorporated into the Romeo Engine Title V Permit identify all of the applicable requirements to which the two gasoline dispensing facilities are subject. Therefore, Ford believes that Condition IX. OTHER REQUIREMENTS, 1. in both flexible group templates is unnecessary and adds confusion as to what

other requirements could be applicable outside of the template. Additionally, these conditions may violate the Title V (40 CFR Part 70) requirements should the condition automatically incorporate future regulatory amendments of those MACT Standards.

If MDEQ believes any applicable requirements are missing from the templates, Ford believes that those requirements should be identified and incorporated into the ROP now to avoid any confusion as to what Ford is required to comply with for the Gasoline Dispensing MACT Standards. The purpose of the templates was to clearly identify all applicable requirements for both Ford, MDEQ, and the public. Therefore, this condition should be deleted from each flexible group.

**AQD Response:**

The language that has been requested for deletion is standard language in all AQD MACT templates. The AQD is leaving the standard language in the ROP to be consistent with all ROP MACT templates. No changes made.

**Company Comment:**

**FG-GASOLINE DISPENSING >10,000 AND <100,000/MONTH - VII. REPORTING 4.:** Ford has already submitted these notifications as required by the regulation. Therefore, this condition can be deleted as there are no further actions required to satisfy this condition.

**AQD Response:**

The AQD understands Ford has already submitted the required notifications. After further review of the regulation the Underlying Applicable Requirement has been changed from **40 CFR 63.11117(a)(1)** to **40 CFR 63.11124(a)(1)**. Also, the condition will remain in the ROP in case the tanks become subject to the control requirements in 63.11117 and not excluded by SC VII.6 below, then a notification would be required.

**Company Comment:**

**FG-EMERGENCY RICE <500 HP:** With regard to the RICE MACT template (40 CFR 60, Subpart ZZZZ), Ford had proposed to add all of the applicable requirements for both existing and new emergency RICE contained in the RICE MACT and appropriate NSPS (40 CFR 60 Subpart IIII or JJJJ). Thus, should Ford install a new emergency RICE (e.g., an engine for emergency power or as a fire pump), the ROP would not need an amendment and it would be clear as to which applicable requirements must be met by Ford for those new RICE.

Without incorporating these requirements for new RICE at this time, Ford believes that the installation of a new emergency RICE would be considered an "off-permit change". Therefore, the applicable requirements for the new emergency RICE would have to be addressed upon ROP renewal (or upon minor amendment application should more than 3 years remain in the life of the ROP) as there are no required notifications under the MACT or NSPS for emergency RICE. As such, Ford requests that the requirements for new emergency RICE be incorporated into the FG-EMERGENCY RICE <500 HP for completeness.

**AQD Response:**

The AQD has not added the requirements for new emergency RICE as they are not applicable requirements at this time. In the event that Ford should decide to install new emergency RICE, it maybe considered an "off-permit change" provided it meets the criteria under Rule 215(3).

**Company Comment:**

**FG-EMERGENCY RICE <500 HP - IX. OTHER REQUIREMENTS, 1.:** Similar to the discussion for the Gasoline Dispensing MACT above, this condition is unnecessary. The template was developed to ensure compliance with the MACT Standard (40 CFR 60, Subpart ZZZZ) by identifying all of the requirements that are expected to be met. By adding this condition to the template, it is not clear what additional actions MDEQ expects Ford to undertake in order to be in compliance. The purpose of the templates was to clearly identify all applicable requirements for all parties. Therefore, this condition should be deleted.

**AQD Response:**

The language that has been requested for deletion is standard language in all AQD MACT templates. The AQD is leaving the standard language in the ROP to be consistent with all ROP MACT templates. No changes made.

**Company Comment:**

**E. NON-APPLICABLE REQUIREMENTS:** For FG-FACILITY, 40 CFR 60, Subpart Kb, the Justification is missing the vapor pressure exclusion. The Justification should read as follows: "The capacity of each storage tank installed after July 23rd, 1984 in service at this facility has a capacity of is less than 75 cubic meters or contains an organic liquid with a vapor pressure less than 15.0 KPa in a tank with a capacity of <151 cubic meters."

**AQD Response:**

The AQD has added the following language to the justification column to clarify the non-applicable requirements.

"The capacity of each storage tank installed after July 23<sup>rd</sup>, 1984 in service at this facility has a capacity of less than 75 cubic meters or storage vessels with a capacity greater than or equal to 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure less than 3.5 kilopascals (kPa) or with a capacity greater than or equal to 75 m<sup>3</sup> but less than 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure less than 15.0 kPa."