

State Registration Number
N7886

**RENEWABLE OPERATING PERMIT
STAFF REPORT**

ROP Number
MI-ROP-N7886-2020

Hyundai America Technical Center, Inc.

State Registration Number (SRN): N7886

Located at

6800 Geddes Road, Superior Township, Washtenaw County, Michigan 48198

Permit Number: MI-ROP-N7886-2020

Staff Report Date: March 16, 2020

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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Michigan Department of Environment, Great Lakes, and Energy
Air Quality Division

State Registration Number
N7886

RENEWABLE OPERATING PERMIT

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March 16, 2020 - 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: | Hyundai America Technical Center, Inc. 6800 Geddes Road Superior Township, Michigan 48198 |
| Source Registration Number (SRN): | N7886 |
| 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: | 2019000447 |
| Responsible Official: | Mark Torigian General Counsel 734-337-2298 |
| AQD Contact: | Diane Kavanaugh Vetort Senior Environmental Quality Analyst 517-416-3537 |
| Date Application Received: | March 14, 2019 |
| Date Application Was Administratively Complete: | April 1, 2019 |
| Is Application Shield in Effect? | Yes |
| Date Public Comment Begins: | March 16, 2020 |
| Deadline for Public Comment: | April 15, 2020 |

Source Description

Hyundai American Technical Center Inc. (HATCI) is an automotive research and development test facility in Superior Township, Michigan. The facility is located in a mainly rural/agricultural area north of Ypsilanti between Canton and Ann Arbor.

HATCI operates four engine dynamometer test cells with emission unit names EU-Dyno1 through EU-Dyno4. The engines tested are required to have an automotive catalyst (catalytic converter) when operating in controlled mode. Each cell is equipped with a single exhaust stack. A fuel usage monitor is required and capable of separately tracking fuel usage for each engine tested in controlled and uncontrolled mode. HATCI also operates five enclosed vehicle test stations which are chassis dynamometers with emission unit names EU-VEC1 through EU-VEC4 and EU-MDYNE1. The vehicles tested can be fueled by unleaded gasoline, ethanol blends, diesel, natural gas, or hydrogen, and are equipped with a catalytic converter. Each station is equipped with a single exhaust stack. One of the chassis dynamometers (EU-VEC4) was installed in approximately 2012 and is operating as exempt per Rule 285(2)(g). For permitting, unleaded gasoline and ethanol blends are considered equivalent fuels.

Ancillary equipment at the facility includes four (4) underground storage tanks (EU-UST#1, EU-UST#2-3-4, EU-UST#5-6, and EU-UST#7) for unleaded gasoline, ethanol blends, and diesel. The underground storage tanks are equipped with vapor balance equipment and submerged fill pipes. One (1) above ground storage tank (EU-GASAST1) is used to store gasoline. There are two emergency generators at the facility, a natural gas-fired emergency generator set (EU-EMERGEN) for back-up power and a diesel fuel-fired emergency fire pump (EU-FIREPUMP).

There have been no significant changes at the facility since the issuance of the initial ROP.

The following table lists stationary source emission information as reported to the Michigan Air Emissions Reporting System (MAERS) for the year 2018.

TOTAL STATIONARY SOURCE EMISSIONS

| Pollutant | Tons per Year |
|------------------------------------|----------------------|
| Carbon Monoxide (CO) | 77.0 |
| Lead (Pb) | 0.01 |
| Nitrogen Oxides (NO _x) | 3.5 |
| PM10* | 0.11 |
| PM2.5** | 0.11 |
| Sulfur Dioxide (SO ₂) | 0.097 |
| Volatile Organic Compounds (VOCs) | 2.6 |

* Particulate matter (PM) that has an aerodynamic diameter less than or equal to a nominal 10 micrometers.

** Particulate matter (PM) that has an aerodynamic diameter less than or equal to a nominal 2.5 micrometers.

The following table lists the potential to emit (PTE) for hazardous air pollutant emissions as calculated by HATCI:

| Individual Hazardous Air Pollutants (HAPs) *** | Tons per Year |
|---|----------------------|
| Benzene | 0.26 |
| Formaldehyde | 2.48 |
| 1,3-butadiene | 0.11 |
| Total Hazardous Air Pollutants (HAPs) | 5.98 |

*** 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 in Washtenaw County, which is currently designated by the United States 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 CO 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.

The stationary source is considered a "synthetic minor" source in regard to the Prevention of Significant Deterioration regulations of the Michigan Air Pollution Control Rules Part 18, Prevention of Significant Deterioration of Air Quality because the stationary source accepted legally enforceable permit conditions limiting the potential to emit of CO to less than 250 tons per year.

EU-EMERGEN at the stationary source is subject to the Standards of Performance for Stationary Spark Ignition Combustion Engines promulgated in 40 CFR Part 60, Subparts A and JJJJ. The natural gas-fired engine portion of EU-EMERGEN is considered certified to meet the emission limitations in the standard.

EU-EMERGEN and EU-FIREPUMP at the stationary source are subject to the National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE) promulgated in 40 CFR Part 63, Subparts A and ZZZZ. The natural gas-fired engine portion of EU-EMERGEN is subject as a new stationary RICE. Compliance with 40 CFR Part 63, Subpart ZZZZ requires meeting the requirements in 40 CFR Part 60, Subparts JJJJ. The diesel fuel-fired engine portion of EU-FIREPUMP is subject to 40 CFR Part 63, Subpart ZZZZ as an existing stationary RICE.

EU-UST#1, EU-UST#2-3-4, EU-UST#5-6, EU-UST#7 and EU-GASAST1 at the stationary source are subject to the National Emissions Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities (GDF) promulgated in 40 CFR Part 63, Subparts A and CCCCC. EU-UST#1, EU-UST#2-3-4, and EU-UST#5-6 are existing GDF, and EU-UST#7 and EU-GASAST1 are new GDF. All compliance dates have passed and controls have been installed as required for a monthly gasoline throughput of at least 10,000 gallons and no more than 100,000 gallons. The ROP contains requirements provided by the applicant for 40 CFR Part 63, Subpart CCCCC. The AQD is not delegated the regulatory authority for this Generally Available Control Technology (GACT) standard which applies to area sources 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 emission limitations or standards requiring a control device for compliance.

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-PTI-N7886-2014 are identified in Appendix 6 of the ROP.

| PTI Number | | | |
|------------|--|--|--|
| 285-08C | | | |

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.

| PTI Exempt Emission Unit ID | Description of PTI Exempt Emission Unit | Rule 212(4) Citation | PTI Exemption Rule Citation |
|-----------------------------|--|----------------------|-----------------------------|
| EU-HVAC | Natural gas-fired building heat with a maximum rated heat input capacity of less than 50 MMBTU/hr. | Rule 212(4)(b) | Rule 282(2)(b)(i) |
| EU-HWBOILER | 5 MMBTU/hr natural gas-fired Cleaver Brooks hot water boiler | Rule 212(4)(b) | Rule 282(2)(b)(i) |
| EU-STEAMBOILER | 2 MMBTU/hr natural gas-fired Fulton steam boiler | Rule 212(4)(b) | Rule 282(2)(b)(i) |
| EU-PUMPBOILER | 0.9 MMBTU/hr natural gas-fired process water boiler | Rule 212(4)(b) | Rule 282(2)(b)(i) |
| EU-VEC4 | An enclosed vehicle test station (chassis dynamometer) with environmental controls. | Rule 212(4)(d) | 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 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 Scott Miller, Jackson 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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April 30, 2020 - STAFF REPORT ADDENDUM

Purpose

A Staff Report dated March 16, 2020, 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

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|-----------------------|--|
| Responsible Official: | Mark Torigian, General Counsel 734-337-2298 |
| AQD Contact: | Diane Kavanaugh Vetort Senior Environmental Quality Analyst 517-416-3537 |

Summary of Pertinent Comments

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

Changes to the March 16, 2020 Draft ROP

No changes were made to the draft ROP.