

State Registration Number
E5094

**RENEWABLE OPERATING PERMIT
STAFF REPORT**

ROP Number
MI-ROP-E5094-2024

Hutchinson Antivibration Systems, Inc.

State Registration Number (SRN): E5094

Located at

460 Fuller Avenue NE, Grand Rapids, Kent County, Michigan 49503

Permit Number: MI-ROP-E5094-2024

Staff Report Date: June 3, 2024

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).

TABLE OF CONTENTS

June 3, 2024 - STAFF REPORT	3
July 5, 2024 - STAFF REPORT ADDENDUM	11

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June 3, 2024 - STAFF REPORT

ROP Number

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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 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:	Hutchinson Antivibration Systems, Inc. 460 Fuller Avenue NE Grand Rapids, Michigan 49503
Source Registration Number (SRN):	E5094
North American Industry Classification System (NAICS) Code:	336390
Number of Stationary Source Sections:	1
Is Application for a Renewal or Initial Issuance?	Renewal
Application Number:	202300054
Responsible Official:	Nazzareno Emili, Plant Manager 917-412-9768
AQD Contact:	April Lazzaro, Senior Environmental Quality Analyst 616-558-1092
Date Application Received:	March 14, 2023
Date Application Was Administratively Complete:	March 14, 2023
Is Application Shield in Effect?	Yes
Date Public Comment Begins:	June 3, 2024
Deadline for Public Comment:	July 3, 2024

Source Description

Hutchinson Antivibration Systems, Inc. is located in Grand Rapids, Michigan. The facility is located on the east side of Fuller Avenue NE, in a commercial area with commercial sites to the east, west and south, and Interstate I-196 to the north. There is a residential neighborhood located to the northwest across I-196. A retention pond is located to the east of the facility. Hutchinson Antivibration Systems, Inc. manufactures a variety of anti-vibration parts, which consist of rubber, metal, and plastic components, for the automotive and truck industry. The rubber is manufactured on site using both natural and synthetic rubber and various types of binders. Metal and plastic components are manufactured elsewhere and shipped to the facility. After primers and adhesives are applied to the metal and plastic components in one of six spray systems, the rubber and metal components are then bonded under heat and pressure in a vulcanization process. Volatile organic compound (VOC) emissions from the process are controlled by a regenerative thermal oxidizer (RTO).

The following table lists stationary source emission information as reported to the Michigan Air Emissions Reporting System (MAERS) for the year **2023**.

TOTAL STATIONARY SOURCE EMISSIONS

Pollutant	Tons per Year
Carbon Monoxide (CO)	1.85
Lead (Pb)	0.00001
Nitrogen Oxides (NO _x)	2.21
PM10*	3.19
Sulfur Dioxide (SO ₂)	0.013
Volatile Organic Compounds (VOCs)	24.47

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

The following table lists Hazardous Air Pollutant emissions as calculated for the year 2023 by company data:

Individual Hazardous Air Pollutants (HAPs) **	Tons per Year
1,1,2-trichloroethane	0.0038
Benzene	0.00004
Cadmium	0.00002
Chromium	0.00003
Ethylbenzene	1.82
Hexane	0.03
Methyl isobutyl ketone	8.20
Formaldehyde	0.0084
Napthalene	0.00001
Nickel	0.00004
Toluene	5.89
Xylene	7.73
Total Hazardous Air Pollutants (HAPs)	23.68

**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 Kent 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 volatile organic compounds (VOCs) exceeds 100 tons per year and the potential to emit of any single Hazardous Air Pollutant (HAP) regulated by Section 112 of the federal Clean Air Act 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.

The stationary source is considered a “synthetic minor” source in regards 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 VOC to less than 250 tons per year.

The coating and adhesive lines in FGRT0 are subject to Best Available Control Technology (BACT) limits. The adhesive lines underwent air toxics review and are subject to limits based on Rule 225.

FGRT0 is subject to the National Emission Standard for Hazardous Air Pollutants (NESHAP) for Miscellaneous Metal Parts Coating promulgated in 40 CFR Part 63, Subparts A and M MMM. The permittee has chosen the emission rate with add-on controls option to comply with Subpart M MMM. In addition, FGRT0 is subject to the NESHAP for Plastic Parts Surface Coating in 40 CFR Part 63, Subpart P PPP. However, since the company has elected to comply with the facility-specific emission limit alternative in Subpart M MMM, then compliance with the facility-specific emission limit in Subpart M MMM constitutes compliance with other applicable surface coating NESHAPs such as Subpart P PPP. Requirements in 40 CFR 63, Subpart P PPP do not need to be added to the ROP.

EUBOILER2 is a natural gas-fired boiler that was manufactured and installed in 1956 and has a heat input capacity of 25.9 MMBTU/hour. EUBOILER4 is a natural gas-fired boiler with a heat input capacity of 12.55 MMBTU/hour, that was manufactured in 1985 and installed at the facility in January 2018. Both boilers are subject to the NESHAP for Industrial Boilers promulgated under 40 CFR Part 63, Subpart D D D D D. Although EUBOILER4 was recently installed at the facility, it is not subject to the New Source Performance Standard (NSPS) for Industrial Steam Generating Units promulgated under 40 CFR Part 60, Subpart D c because the unit was operating prior to the 1989 applicability date in the rule; under the General Provisions of 40 CFR Part 60, Subpart A, relocation or change in ownership of an existing facility does not affect the applicability of the rule. EUBOILER2 is also not subject to the NSPS because of the manufactured/installation date.

EUGENERATOR is subject to the NESHAP for Reciprocating Internal Combustion Engines promulgated under 40 CFR Part 63, Subparts A and Z Z Z Z. The generator is a 70-horsepower natural gas spark ignition (SI) reciprocating internal combustion engine (RICE) used for emergency purposes and was installed in May 2007. Due to the installation date, it is considered a new source. A new source is considered to be in compliance with the RICE NESHAP by being in compliance with the NSPS for Spark Ignition Internal Combustion Engines promulgated under 40 CFR Part 60, Subpart J J J J. However, under the NSPS, only engines installed after June 12, 2006, and manufactured after January 1, 2009, are subject to the NSPS requirements, therefore, there are no applicable requirements. Since there are no applicable requirements for the emergency engines, a RICE MACT flexible group has not been created.

FGRULE290 is a flexible group requirement table created for emission units subject to R 336.1290. Emission units installed before December 20, 2016, can comply with the requirements of 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.

Consent Order AQD No. 25-2016 was incorporated into the previous ROP under FGRT0 and FGMMMM. The Consent Order was terminated on October 8, 2019, and the Consent Order references have been removed from the ROP Renewal.

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."

EUMIX, EUCARBON, and EUWHEEL do not have emission limitations or standards that are subject to the federal Compliance Assurance Monitoring rule pursuant to 40 CFR Part 64 because the unit(s) do not have potential pre-control emissions over the major source thresholds based on potential-to-emit calculations provided by the facility. These emission units use baghouses for control.

The emission limitation(s) or standard(s) for Organic HAP at the stationary source with the underlying applicable requirement(s) of 40 CFR 63.3890(b)(4) from the National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal parts and Products in FGMMMM is exempt from the federal Compliance Assurance Monitoring (CAM) regulation pursuant to 40 CFR 64.2(b)(1)(i) because the 37.7lb organic HAP per gallon coating solids limit meets the CAM exemption for an NSPS or MACT proposed after November 15, 1990.

Emission units (EUSIL01, EUSIL02, EUSIL03, EUCOE01, EUCOE02, EUPR1, EURC1, EURC2, EURC3) in FGRT0 are subject to the National Emission Standard for Hazardous Air Pollutants (NESHAP) for Surface Coating of Miscellaneous Metal Parts and Products promulgated in 40 CFR Part 63, Subparts A and MMMM. The volatile organic compound (VOC) emissions from these coating lines in FGRT0 are controlled by a capture system and a common regenerative thermal oxidizer (RTO). There are monitoring requirements in 40 CFR 63, Subpart MMMM for these capture systems and the RTO which will capture and control both HAP and volatile organic compound (VOC) emissions. Hutchinson proposed to use these monitoring requirements as presumptively acceptable monitoring (PAM) to satisfy CAM monitoring for VOC emission limits.

The following Emission Units/Flexible Groups are subject to CAM:

Emission Unit ID	Pollutant/ Emission Limit	UAR(s)	Control Equipment	Monitoring	Emission Unit/ Flexible Group for CAM	Presumptively Acceptable Monitoring?
FGRT0 EUSIL01 EUSIL02 EUSIL03 EUCOE01 EUCOE02 EUPR1 EURC1 EURC2 EURC3	VOC – 50.4 tons per year based on a 12-month rolling time as determined at the end of each calendar month.	R 336.1205, R 336.1702(a)	Permanent Total Enclosure Capture System	Direction of the air flow by continuously monitoring the pressure of airflow to determine the direction of airflow is into the enclosure and the average facial velocity of air through all-natural	FGRT0	Yes

Emission Unit ID	Pollutant/ Emission Limit	UAR(s)	Control Equipment	Monitoring	Emission Unit/ Flexible Group for CAM	Presumptively Acceptable Monitoring?
				draft openings in the enclosure is at least 200 feet per minute.		
			Not a Permanent Total Enclosure Capture System	Average gas volumetric flow rate or duct static pressure in each duct between the capture device and the add-on control device inlet in any 3-hour period is at or above the average volumetric flow rate or duct static pressure limit established for that capture device according to 40 CFR 63.3967(f); CFM = Greater than 2,369 based on 3-hour block average, per Appendix 3 of the ROP.	FGRTO	
			Regenerative Thermal Oxidizer	Combustion Chamber Temperature: The higher of the minimum temperature of 1,450°F or the average combustion temperature in any 3-hour period at or above the combustion temperature limit established according to 40 CFR 63.3967(a).	FGRTO	

Emission Unit ID	Pollutant/ Emission Limit	UAR(s)	Control Equipment	Monitoring	Emission Unit/ Flexible Group for CAM	Presumptively Acceptable Monitoring?
FGRT0 EUPR1 EURC1 EURC2 EURC3	VOC - 23.6 tons per year based on a 12-month rolling time period as determined at the end of each calendar month.	R 336.1205, R 336.1702(a)	Permanent Total Enclosure Capture System	Direction of the air flow by continuously monitoring the pressure of airflow to determine the direction of airflow is into the enclosure and the average facial velocity of air through all-natural draft openings in the enclosure is at least 200 feet per minute.	FGRT0	Yes
			Not a Permanent Total Enclosure Capture System	Average gas volumetric flow rate or duct static pressure in each duct between the capture device and the add-on control device inlet in any 3-hour period is at or above the average volumetric flow rate or duct static pressure limit established for that capture device according to 40 CFR 63.3967(f); CFM = Greater than 2,369 based on 3-hour block average, per Appendix 3 of the ROP.		
			Regenerative Thermal Oxidizer	Combustion Chamber Temperature: The higher of the minimum temperature of 1,450°F or the average combustion temperature in any	FGRT0	

Emission Unit ID	Pollutant/Emission Limit	UAR(s)	Control Equipment	Monitoring	Emission Unit/Flexible Group for CAM	Presumptively Acceptable Monitoring?
				3-hour period at or above the combustion temperature limit established according to 40 CFR 63.3967(a).		

*Presumptively Acceptable Monitoring (PAM)

Emission units (EUSIL01, EUSIL02, EUSIL03, EUCOE01, EUCOE02, EUPR1, EURC1, EURC2, EURC3) in FGRT0 are subject to the National Emission Standard for Hazardous Air Pollutants (NESHAP) for Surface Coating of Miscellaneous Metal Parts and Products promulgated in 40 CFR Part 63, Subparts A and MMMM. The volatile organic compound (VOC) emissions from these coating lines in FGRT0 are controlled by a capture system (permanent total enclosure and not a permanent total enclosure) and a common regenerative thermal oxidizer (RTO). There are monitoring requirements in 40 CFR 63, Subpart MMMM for these capture systems and the RTO which will capture and control both organic HAP and volatile organic compound (VOC) emissions. Hutchinson proposed to use these monitoring requirements included in 40 CFR Part 63, Subpart MMMM as presumptively acceptable monitoring (PAM) for the capture system and the RTO to satisfy CAM rule monitoring requirement for VOC emission limits.

The facility CAM plan utilizes continuous monitoring to ensure that the direction of air flow is into each PTE, and that the facial velocity of air through all natural draft openings of the PTE is at least 200 feet per minute. For those enclosures that are not a PTE, the facility ensures that the volumetric flow rate in any 3-hour period is greater than the limit established according to 40 CFR 63.3967(f). The RTO is installed with a continuous combustion chamber temperature monitoring device that is required to be calibrated and maintained. The facility identifies maintaining a minimum combustion temperature of the RTO at 1,577°F for proper VOC destruction.

Please refer to Parts B, C and D in the 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-E5094-2018 are identified in Appendix 6 of the ROP.

PTI Number			
1120-80	1124-80B	289-88	709-86A
164-88	48-95A	234-03	54-06A
54-06	49-18	54-06B	183-16

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 Not in the Draft ROP

The following table lists PTI exempt processes that were not included in the ROP pursuant to Rule 212(4). These processes are not subject to any process-specific emission limits or standards.

Emission Unit ID	Description of Emission Unit	Rule 212(4) Citation	PTI Exemption Rule Citation
EU-GENERATOR	70 HP Natural gas-fired generator	212(4)(d)	282(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 Heidi Hollenbach, Grand Rapids 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.

Purpose

A Staff Report dated June 3, 2024, 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:	Nazzareno Emili, Plant Manager 917-412-9768
AQD Contact:	April Lazzaro, Senior Environmental Quality Analyst 616-558-1092

Summary of Pertinent Comments

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

Changes to the June 3, 2024 Draft ROP

No changes were made to the draft ROP.