

State Registration Number
P0374

**RENEWABLE OPERATING PERMIT
STAFF REPORT**

ROP Number
MI-ROP-P0374-2022

**Plasan Carbon Composites
and
Plasan North America**

State Registration Number (SRN): P0374

Located at

3195 Wilson Drive and 3111 North Wilson Court NW, Suite A, Walker, Kent County, Michigan 49534

Permit Number: MI-ROP-P0374-2022

Staff Report Date: May 23, 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) 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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RENEWABLE OPERATING PERMIT
May 23, 2022 - STAFF REPORT

ROP Number

MI-ROP-P0374-2022

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:	Plasan Carbon Composites 3195 Wilson Drive NW Walker, Michigan 49534
Source Registration Number (SRN):	P0374
North American Industry Classification System (NAICS) Code:	335991
Number of Stationary Source Sections:	1
Is Application for a Renewal or Initial Issuance?	Renewal
Application Number:	202100092
Responsible Official:	Dalton Blackwell, Chief Operations Officer 616-820-0908
AQD Contact:	Michael Cox, Environmental Quality Analyst 616-240-3607
Date Application Received:	May 28, 2021
Date Application Was Administratively Complete:	May 28, 2021
Is Application Shield in Effect?	Yes
Date Public Comment Begins:	May 23, 2022
Deadline for Public Comment:	June 22, 2022

Source Description

Plasan Carbon Composites and Plasan North America comprise one stationary source located at 3195 Wilson Drive NW, and 3111 North Wilson Court NW, Walker, Michigan, respectively. Plasan Carbon Composites is primarily located in Plant 1 at 3195 Wilson Drive NW, which is the larger of the two plants. Plasan North America is currently located at 3111 North Wilson Court NW, Suite A. The facility is utilizing a third building for warehousing which could be used for small parts assembly in the future. Plasan Carbon Composites operated Section 2 of the ROP at 3236 Wilson Drive NW, Suites A and B, but has recently moved the process equipment under Section 2 to Plant 1 and no longer operates at this address. The facility is combining Section 1 and Section 2 of MI-ROP-P03749-2017b in this renewal.

Plasan Carbon Composites and Plasan North America operate in an industrial park that is located near the Kent County and Ottawa County border.

Plasan Carbon Composites is a manufacturer of high-end carbon composite automotive parts, primarily consisting of hoods and roofs. The parts are manufactured by heat mold carbon composite into the desired shape and are then finished by sanding, bonding, and coating. The thermoforming of the carbon composite sheets and the adhesive application processes as well as priming operations are now located in Plant 1. Paint line (EUPAINTLINE-1) is an enclosed conveyORIZED coating line with a five (5) stage wash line and an associated drying oven. EUPAINTLINE-1 consists of a paint application booth divided into a robotic section and a manual section, enclosed flash tunnel, and a natural gas fired curing oven. The paint booth, flash tunnel, and first section of the curing oven are exhausted to a regenerative thermal oxidizer (RTO). Paint line (EUPAINTLINE-2) was also a conveyORIZED coating line, which consisted of a four-stage wash line, dry off oven, cool down zone, a single paint application booth, a non-enclosed flash zone, and a natural gas fired curing oven. EUPAINTLINE-2 was removed from the facility on December 31, 2020 and is no longer an emission unit at this source.

Plasan North America designs and manufactures a broad range of composite products for military and industrial applications. Production at this location consists primarily of military armor. All of the process equipment for Plasan North America was moved to Plant 1. These operations were formerly in Section 2 of MI-ROP-P0374-2017b. The associated equipment includes a single pultrusion molding line that pulls reinforced fiber material through a resin bath and then a series of preform plates which shape the coated fibers. The coated fibers are then drawn through a heated die that initiates an exothermic reaction and polymerizes the thermosetting resins to produce composite rods and tubes. The finished product is then cut into the desired length with a wet saw.

The following table lists stationary source emission information as reported to the Michigan Air Emissions Reporting System (MAERS) for the year **2020**.

TOTAL STATIONARY SOURCE EMISSIONS

Pollutant	Tons per Year
Carbon Monoxide (CO)	0.307
Lead (Pb)	0
Nitrogen Oxides (NO _x)	1.54
Particulate Matter (PM)	0.13
Sulfur Dioxide (SO ₂)	0.02
Volatile Organic Compounds (VOCs)	8.56

The following table lists Hazardous Air Pollutant emissions as calculated for the year 2020 by Plasan Carbon Composites, as gathered in November 2021:

Individual Hazardous Air Pollutants (HAPs) **	Pounds per Year
Benzo(a)anthracene	0.000000272
Methanol	5.46
Methyl Methacrylate	1.554
Naphthalene	0.00023
Cumene	0.1608
Ethylbenzene	6.03
Styrene	0.0876
4,4-Mehtylenediphenyl Diisocyanate	0.226
Methyl Isobutyl Ketone	5.46
Ethylene Glycol Monobutyl	3.34
Fluoranthene	0.00000234
Chrysene	0.000000214
2,4-Toluene Diisocyanate	0.562
Hexamethylene Diisocyanate	0.372
Xylene	40
Bezene	0.00023
Formaldehyde	0.001186
Toluene	0.0069
Total Hazardous Air Pollutants (HAPs)	43.5330185812

**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.

The stationary source is a “synthetic minor” source regarding Hazardous Air Pollutant (HAP) emissions because the stationary source accepted a legally enforceable permit condition limiting the potential to emit of any single HAP regulated by Section 112 of the federal Clean Air Act, to less than 10 tons per year and the potential to emit of all HAPs combined to less than 25 tons per year.

The facility became subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Surface Coating of Plastic Parts and Products, 40 CFR Part 63, Subpart PPPP when the facility exceeded the major source HAP emission thresholds in 2015 and became a major source of HAPs. Following this, Plasan Carbon Composites and Plasan North America took enforceable permit conditions and entered into Consent Order AQD No. 15-2016 to limit HAP emissions to below major source thresholds but remained subject to the major source NESHAP due to EPA’s “Once in always in” policy. Since then, the Environmental Protection Agency has rescinded the “Once in always in” policy. Consent Order AQD No. 15-2016 has since been terminated as of August 8, 2019, and Plasan Carbon Composites and Plasan North America are no longer subject to 40 CFR Part 63 Subpart PPPP. The requirements of Subpart PPPP have been removed from the ROP.

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 of 40 CFR 52.21 because the stationary source accepted legally enforceable permit conditions limiting the potential to emit of volatile organic compounds to less than 250 tons per year.

EUGENERATOR-2 at the stationary source is subject to the Standards of Performance for New Stationary Sources for Stationary Spark Ignition Internal Combustion Engines promulgated in 40 CFR Part 60, Subparts A and JJJJ. Since this engine was constructed after June 12, 2006, it is considered a new source and by complying with Subpart JJJJ, EUGENERATOR-2 is considered to be complying with the National Emission Standard for Hazardous Air Pollutants Subpart ZZZZ.

EUGENERATOR-1 and EUFIREPUMP at the stationary Source are subject to the National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines promulgated in 40 CFR Part 63, Subparts A and ZZZ (Stationary Reciprocating Internal Combustion Engines Area Source MACT).

Based on New Source Review permitting, EUCARBONMOLD, EUPULTRUSION, and FGPAINT were determined to meet BACT (Best Available Control Technology) through the VOC limitations and process and operational restrictions. Toxic Air Contaminant (TAC) emissions were also evaluated and limits for styrene, acetone, MDI isomer, p-Chlorobezotrifluoride, and Methyl acetate were established.

EUPAINTLINE-1 can operate with or without the Regenerative Thermal Oxidizer (RTO) control.

EUPAINTLINE-2 was removed from the facility in December 2020.

The AQD’s Rules 287 and 290 were revised on December 20, 2016. FGRULE287(2)(c) and FGRULE290 are flexible group tables created for emission units subject to these rules. 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 as identified in the tables. However, emission units installed or modified on or after December 20, 2016 must comply with the requirements of the current rules as outlined in the tables.

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".

FGPAINT (EUPAINTLINE-1) has emission limitations or standards that are subject to the federal Compliance Assurance Monitoring rule pursuant to 40 CFR Part 64, because the unit has potential pre-control emissions over the major source thresholds for volatile organic compounds. EUPAINTLINE-1 is controlled by a regenerative thermal oxidizer. The monitoring of this control device is a continuous temperature recording device. The CAM requirements can be found in FGCAMPLAN.

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

Emission Unit/Flexible group ID	Pollutant/ Emission Limit	UAR(s)	Control Equipment	Monitoring (Include Monitoring Range)	Emission Unit/Flexible Group for CAM	PAM ? *
FGPAINT (EUPAINTLINE-1)	VOC, Acetone (CAS No. 67-64-1), p-Chlorobezotrifluoride (CAS No. 98-56-6), and Methyl acetate (CAS No. 79-20-9) combined /35.0 tpy**	R 336.1702(a)	RTO	Combustion Temperature > 1500°F or a minimum temperature established during most recent acceptable performance test which was 1500° F	FGCAMPLAN	No

*Presumptively Acceptable Monitoring (PAM)

** Controlled and uncontrolled combined emission limit

The facility's CAM requirements can be found in FGCAMPLAN.

The facility conducted a stack test of the RTO serving EUPAINTLINE-1 on January 11, 2017, to determine the destruction efficiency of the RTO. The destruction efficiency of the RTO was determined to be an average of 97.87% based on the three test runs conducted during the stack test. Under FGCAMPLAN the facility is required to continuously monitor and record the temperature of the combustion chamber of the RTO and maintain a minimum combustion chamber temperature of 1500°F or a minimum temperature established during the most recent acceptable performance test to insure the proper destruction efficiency of the RTO, which was 1500°F. By maintaining the combustion temperature of the RTO, the facility will ensure the proper destruction of VOCs and HAPs, assuring compliance with the emission limits. The facility is required to maintain the monitoring system and keep parts for repair. The facility is also required to conduct semiannual and annual inspections of the RTO to ensure proper operation, thus ensuring 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-ROP-P0374-2017b are identified in Appendix 6 of the ROP.

PTI Number			
130-12	130-12A	130-12B	130-12C
130-12D	35-16		

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 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
EUHYRAX	Manual cold bonding, manual spot GMAW welding and manual assembly of body paneling for custom defense vehicles.	Rule 212(4)(i)	Rule 291

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.

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

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June 23, 2022 - STAFF REPORT ADDENDUM

MI-ROP-P0374-2022

Purpose

A Staff Report dated May 23, 2022, 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:	Dalton Blackwell, Chief Operations Officer 616-820-0908
AQD Contact:	Michael Cox, Environmental Quality Analyst 616-240-3607

Summary of Pertinent Comments

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

Changes to the May 23, 2022 Draft ROP

No changes were made to the draft ROP.