

State Registration Number
N7707

**RENEWABLE OPERATING PERMIT
STAFF REPORT**

ROP Number
MI-ROP-N7707-2023

Shelby Foam Systems

State Registration Number (SRN): N7707

Located at

6200 26 Mile Road, Shelby Township, Macomb County, Michigan 48316

Permit Number: MI-ROP-N7707-2023

Staff Report Date: March 27, 2023

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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MARCH 27, 2023 - 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:	Shelby Foam Systems 6200 26 Mile Road Shelby Township, Michigan 48316
Source Registration Number (SRN):	N7707
North American Industry Classification System (NAICS) Code:	326150
Number of Stationary Source Sections:	1
Is Application for a Renewal or Initial Issuance?	Renewal
Application Number:	202200091
Responsible Official:	Matthew Finneran, Assistant General Manager 586-816-1409
AQD Contact – District Inspector	Noshin Khan, Environmental Engineer 586-536-1197
AQD Contact – ROP Writer:	Sebastian Kallumkal, Environmental Quality Specialist 586-201-0175
Date Application Received:	April 6, 2022
Date Application Was Administratively Complete:	April 6, 2022
Is Application Shield in Effect?	Yes
Date Public Comment Begins:	March 27, 2023
Deadline for Public Comment:	April 26, 2023

Source Description

Shelby Foam is an automotive foam seat cushions manufacturing facility. On December 21, 2009, the facility was acquired from Faurecia Automotive Seating, Inc. and became a division of Magna Seating of America. The facility is located in Shelby Township, Macomb County, Michigan. The property is located on the south side of 26 Mile Road east of Mound Road, west of Van Dyke Avenue and about a mile west of Van Dyke Freeway (M-53). There are residential neighborhoods less than a quarter of a mile northwest from Mound Road and 26 Mile Road, northeast, and southeast from the facility location. The immediate property boundaries of the facility are industrial/commercial establishments.

The facility currently manufactures bench and bucket foam seat cushions for the production of automotive seats. The seat cushion is produced by injecting/mixing polyol, polymeric diphenylmethane diisocyanate (MDI), and some additives into a lid and bowl type molding press and allow for chemical reaction to occur for about three to four minutes to form the product. The facility operates two main production lines: EU-RTLLine (bench line) and EU-CFLLine (bucket line). The facility had been permitted for a third production line (EU-RULine), but it was never installed. The main production lines utilize release solvent and/or wax that contain volatile organic compounds (VOCs) and Hazardous Air Pollutants (HAPs). The facility recently obtained Permit to Install (PTI) No. 303-06F, which modified EU-Anti-Squeak.

The following table lists stationary source emission information as reported to the Michigan Air Emissions Reporting System (MAERS) for the year **2021**.

TOTAL STATIONARY SOURCE EMISSIONS

Pollutant	Tons per Year
Carbon Monoxide (CO)	0.08
Nitrogen Oxides (NO _x)	0.36
Particulate Matter (PM)	0.03
Sulfur Dioxide (SO ₂)	0.23
Volatile Organic Compounds (VOCs)	42.79

The following table lists Hazardous Air Pollutant emissions as calculated for the year 2022 by Shelby Foam Systems:

Individual Hazardous Air Pollutants (HAPs) **	Tons per Year
Methylene Diphenyl Diisocyanate (MDI)	0.002
Methanol (CH ₃ OH)	0.052
Total Hazardous Air Pollutants (HAPs)	<1.0

**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.

Macomb County is currently designated by the United States Environmental Protection Agency (USEPA) as a non-attainment area with respect to the 8-hour ozone standard.

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 exceeds 100 tons per year.

The stationary source is a “synthetic minor” source regarding 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.

No emission units at the stationary source are currently subject to the Prevention of Significant Deterioration regulations of Part 18, Prevention of Significant Deterioration of Air Quality of Act 451, because at the time of New Source Review permitting the potential to emit of volatile organic compounds was less than 250 tons per year.

EU-EMERGEN at the stationary source is subject to the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines promulgated in 40 CFR Part 60, Subparts A and IIII.

EU-EMERGEN at the stationary source is also 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.

EU-RTLLine, EU-CFLLine and EU-Anti-Squeak at the stationary source are subject to the National Emissions Standards for Hazardous Air Pollutants for Flexible Polyurethane Foam Production and Fabrication Area Sources promulgated in 40 CFR Part 63, Subparts A and OOOOOO. The ROP contains special conditions provided by Shelby Foam Products in their application for applicable requirements from 40 CFR Part 63, Subparts A and OOOOOO. The AQD is not delegated the regulatory authority for this area source MACT.

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 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. N7707-2018 are identified in Appendix 6 of the ROP.

PTI Number			
303-06D	303-06E		

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-Water_Heater	750,000 BTU boiler fired by sweet natural gas used to heat water (2)	R 336.1212(4)(c)	R 336.1282(2)(b)(i)
EU-Portable_Cutting_Torches	Portable cutting torches (oxygen / acetylene) used in maintenance	R 336.1212(4)(e)	R 336.1285(2)(j)(i)
EU-Repair- Stations	Repair stations (4) using Simalfa 309 adhesive for repairs in foam cushion	R 336.1212(4)(i)	R 336.1291
EU-VideoJet	Ink identification system used to label barcodes on foam cushions	R 336.1212(4)(i)	R 336.1291
EU-TANKS	6 – 7,000 gal. above ground storage tanks for Polyol and Polymeric MDI	R 336.1212(4)(d)	R 336.1284(2)(i)
EU-FrtOfficeAMU	1 – natural gas fired heater (0.115 MMBTU/hr. rated heat input)	R 336.1212(4)(c)	R 336.1282(2)(b)(i)
EU-BreakRoomAMU	1 – natural gas fired heater (0.007 MMBTU/hr. rated heat input)	R 336.1212(4)(c)	R 336.1282(2)(b)(i)
EU-QualityLabAMU	1 – natural gas fired heater (0.030 MMBTU/hr. rated heat input)	R 336.1212(4)(c)	R 336.1282(2)(b)(i)
EU-Weatherite	2 – natural gas fired heater (1.890 MMBTU/hr. rated heat input)	R 336.1212(4)(c)	R 336.1282(2)(b)(i)
EU-WarehouseAMU	1 – natural gas fired heater (2.400 MMBTU/hr. rated heat input)	R 336.1212(4)(c)	R 336.1282(2)(b)(i)

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 Brad Myott, Field Operations Manager. 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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RENEWABLE OPERATING PERMIT
MAY 3, 2023 - STAFF REPORT ADDENDUM

ROP Number
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Purpose

A Staff Report dated March 27, 2023, 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:	Matthew Finneran, Assistant General Manager 586-816-1409
AQD Contact – District Inspector	Noshin Khan, Environmental Engineer 586-536-1197
AQD Contact – ROP Writer:	Sebastian Kallumkal, Environmental Quality Specialist 586-201-0175

Summary of Pertinent Comments

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

Changes to the March 27, 2023 Draft ROP

No changes were made to the draft ROP.