

State Registration Number
B6619

**RENEWABLE OPERATING PERMIT
STAFF REPORT**

ROP Number
MI-ROP-B6619-2024

Tiara Yachts Division of S2 Yachts, Inc.

State Registration Number (SRN): B6619

Located at

725 East 40th Street, Holland, Allegan County, Michigan 49423

Permit Number: MI-ROP-B6619-2024

Staff Report Date: January 22, 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

JANUARY 22, 2024 STAFF REPORT	3
MARCH 11, 2024 - STAFF REPORT ADDENDUM	10

State Registration Number

B6619

RENEWABLE OPERATING PERMIT

ROP Number

MI-ROP-B6619-2024

JANUARY 22, 2024 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:	Tiara Yachts Division of S2 Yachts 725 East 40 th Street Holland, Michigan 49423
Source Registration Number (SRN):	B6619
North American Industry Classification System (NAICS) Code:	336612
Number of Stationary Source Sections:	1
Is Application for a Renewal or Initial Issuance?	Renewal
Application Number:	201900093
Responsible Official:	Robert L. Slikkers, President 616-392-7163
AQD Contact:	Cody Yazzie, Environmental Engineer 269-312-2754
Date Application Received:	May 17, 2019
Date Application Was Administratively Complete:	May 17, 2019
Is Application Shield in Effect?	Yes
Date Public Comment Begins:	January 22, 2024
Deadline for Public Comment:	February 21, 2024

Source Description

Tiara Yachts Division of S2 Yachts (Facility) utilizes a variety of processes to manufacture large boats or other fiberglass reinforced plastic components. These processes include fiberglass spray layup and gelcoat spray layup for creating the hulls, decks, and various other fiberglass portions of the boats or other products. The fiberglass resin and gelcoat spray layup processes account for the majority of VOC emissions from the Facility. The Facility also includes a woodshop that manufactures the wooden portions of the boats and a cabinet shop where the boat interiors are hand constructed.

The facility is located in an industrial park on the south side of Holland. The nearest residential area is located approximately 0.8 miles to the north east of the facility. The facility operates 24 hours a day with one primary manufacturing shift. The manufacturing operation is five days per week that produces around 15 boats every month.

The facility used to manufacture other composite reinforced plastic windmill blades as a part of their operation. The facility has not produced these windmill blades since approximately 2014. The facility has since discontinued the portion of the business that would produce them. As a result, the facility appears to only manufacture composite reinforced plastics that are related to boat manufacturing and is no longer subject to the National Emission Standard for Hazardous Air Pollutants for Reinforced Plastics Composites Production promulgated in 40 CFR Part 63, Subpart WWWW.

The following table lists stationary source emission information as reported to the Michigan Air Emissions Reporting System (MAERS) for the year **2019**.

TOTAL STATIONARY SOURCE EMISSIONS

Pollutant	Tons per Year
Carbon Monoxide (CO)	2.43
Lead (Pb)	0.00
Nitrogen Oxides (NO _x)	2.89
Particulate Matter (PM)	0.45
Sulfur Dioxide (SO ₂)	0.02
Volatile Organic Compounds (VOCs)	62.39

The following table lists Hazardous Air Pollutant emissions as calculated for the year 2019 by the facility's MAERS Report:

Individual Hazardous Air Pollutants (HAPs) **	Tons per Year
Styrene	38.75
Total Hazardous Air Pollutants (HAPs)	38.75

**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 western half of Allegan 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 Facility is located within this non-attainment area for ozone.

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 potential to emit of any single 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.

No emission units at the stationary source were subject to the Prevention of Significant Deterioration regulations of the Michigan Air Pollution Control Rules Part 18, Prevention of Significant Deterioration of Air Quality of Act 451 or 40 CFR 52.21 because at the time of New Source Review permitting the potential to emit of each criteria pollutant was less than 250 tons per year.

Tiara Yachts has requested removal of the provisions of the National Emission Standard for Hazardous Air Pollutants for Reinforced Plastics Composites Production promulgated in 40 CFR Part 63, Subpart WWWW with this ROP renewal. The facility previously had a portion of their business come from the manufacturing of windmill blades made from reinforced plastics. During this renewal cycle the facility has discontinued the portion of the business that provided the windmill blades. The facility appears to only make reinforced plastic composites that are related to boat manufacturing and is no longer subject to the 40 CFR Part 63, Subpart WWWW.

EUEMERGENCYGEN at the stationary source is subject to the Standards of Performance for Stationary Spark Ignition Internal Combustion Engines promulgated in 40 CFR Part 60, Subparts A and JJJJ.

EUSOLVENT, EUUPHOLSTRYADH, EUENGINEERING, and EUMOLDINGEQUIP at the stationary source are subject to the National Emission Standard for Hazardous Air Pollutants for Boat Manufacturing promulgated in 40 CFR Part 63, Subparts A and VVVV.

The stationary source is not subject to the National Emission Standard for Hazardous Air Pollutant Standards for Engine Test Cells/Stands promulgated in 40 CFR, Part 63, Subparts A and P PPPP, because the engines are tested after being installed in boats.

EUEMERGENCYGEN at the stationary source is subject to the National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines promulgated in 40 CFR Part 63, Subparts A and ZZZZ.

The facility does have three natural gas-fired boilers that range in heat input ratings from 0.136 – 2.87 MMBTU/hr. These boilers are used for heating of the parking lot located at the facility. These boilers do not appear to be subject to 40 CFR Part 63, Subparts A and DDDDD for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters. The boilers that are installed do not appear to meet the definition of an industrial boiler as the boilers are not used in the manufacturing process at the facility. The boilers also do not appear to meet the definition of a commercial/institutional boiler because the facility is not a commercial/institutional location as is defined in the regulation.

The stationary source is not subject to the National Emission Standard for Hazardous Air Pollutants for Wood Furniture Manufacturing Operations promulgated in 40 CFR, Part 63, Subparts A and JJ. The SIC code for the stationary source is not covered by the regulation.

There have been no recent compliance issues with the source. Staff checked the FCE Summary Report for the facility December 7, 2015 through December 7, 2018, which included partial compliance evaluations for ROP annual and semi-annual certifications, CAM Excursions/Exceedances reports, MACT certifications reports, and scheduled inspections. From all partial evaluations reviewed, the facility appears to be in compliance.

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."

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? *
EUWOODSHOP	Particulate Matter; 0.10 lbs. per 1,000 lbs. of exhaust gases	R336.1331 (1) (a), Table 31 (J)	Fabric filter dust collector	Pressure drop across the Fabric filter collector; 0.5 to 6.0 "WC	FGWOODCAM	No

*Presumptively Acceptable Monitoring (PAM)

The wood shop consists of woodworking equipment, saws, routers, grinders, sanders, etc., for the production of wood components used in the fabrication of fiberglass yachts. Sawdust collection and control equipment includes a Torit & Day fabric filter dust collection system. Filtered air is recirculated back to the wood shop (100%) for energy recovery and no exhaust is directed to the outer air.

The CAM plan has described a monitoring approach that monitors the pressure drop across the Torit & Day dust collection system that will be monitored with a differential pressure gauge to determine proper operation of the unit. Tiara selected the pressure drop across the Torit & Day system as a performance indicator because it is indicative of good operation of the units. The removal effectiveness is proportional to the pressure drop across the unit as measured during actual operation. The design efficiency of the dust collector has been demonstrated under variable operating conditions and within the operating range described in this CAM plan. Fabric filter dust collection systems are known for relative reliability so long as the operating range is maintained.

The facility uses a range of 0.5 to 6.0 inches of water as the acceptable operating range. Facility indicated that measurements below 0.5 inches of water may indicate either a system fan failure or the failure of the filter system, and measurements above 6.0 inches may indicate filter plugging (blinding) and may require filter media attention or replacement. The use and proper maintenance of the system has allowed Tiara to recirculate air back to the wood shop.

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-B6619-2015 are identified in Appendix 6 of the ROP.

PTI Number			
433-96	84-06	84-06A	35-11
535-85	97-79	77-23	

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

PTI Exempt Emission Unit ID	Description of PTI Exempt Emission Unit	Rule 212(4) Citation	PTI Exemption Rule Citation
EUAMU	Air make-up units	Rule 212(4)(c)	Rule 282(2)(b)(i)
EUHVAC	Heating, ventilating, and air conditioning units	Rule 212(4)(c)	Rule 282(2)(b)(i)
EUBOILERS	Three Natural gas-fired boilers that range in heat input ratings from 0.136 – 2.87 MMBTU	Rule 212(4)(c)	Rule 282(2)(b)(i)
EUTEST CELLS	Test cells for testing boat drive motors before shipping	Rule 212(4)(c)	Rule 282(2)(g)

Draft ROP Terms/Conditions Not Agreed to by Applicant

The following table lists terms and/or conditions of the draft ROP that the AQD and the applicant did not agree upon and outlines the applicant’s objections pursuant to Rule 214(2). The terms and conditions that the AQD believes are necessary to comply with the requirements of Rule 213 shall be incorporated into the ROP.

Emission Unit/ Flexible Group ID	Permit Term(s) and/or Condition(s) in Dispute	Applicant's Objection
EUHULLDECKGRINDING	Special Condition V.1	The facility claims the addition of the testing language would cause a burden for the company in having a cost associated with retrofitting stacks exclusively so that the emission unit could be tested since the emissions are vented internally and the configuration does not meet the testing protocol requirements.
FGPARTICULATE	Special Condition V.1	The facility claims the addition of the testing language would cause a burden for the company in having a cost associated with retrofitting stacks exclusively so that the emission unit could be tested since the emissions are vented internally and the configuration does not meet the testing protocol requirements.
FGWOODCAM	Special Condition V.1	The facility claims the addition of the testing language would cause a burden for the company in having a cost associated with retrofitting stacks exclusively so that the emission unit could be tested since the emissions are vented internally and the configuration does not meet the testing protocol requirements.
FGMACTVVVV	Description	The facility objects to the inclusion of closed molding operations in the flexible group description. The facility claims that only open molding portions of a closed molding process are subject to the NESHAP standard.

The AQD's rationale for including the testing language in Special Condition V.1 for EUHULLDECKGRINDING, FGPARTICULATE, and FGWOODCAM is since each emission unit/flexible group has emission limits they also need practical requirements to demonstrate compliance with those limits. The language included in the special conditions specifically address the type of testing, methods, and pollutant type that would need to be followed to demonstrate compliance in the event AQD would request testing.

The AQD has included closed molding operations in the FGMACTVVVV description because in section 63.5689(b) specifically notes that closed molding resin operations are one of the operations that are covered by the subpart. The preamble of the NESHAP also appears to make it clear that the NESHAP applies to closed molding resin operations that fiberglass boat manufacturers utilize. In the Summary of the Final NESHAP section specific operations are named to being subject to the NESHAP. These operations coincides with section 63.5689.

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 Monica Brothers, Kalamazoo 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.

State Registration Number
B6619

RENEWABLE OPERATING PERMIT
MARCH 11, 2024 - STAFF REPORT ADDENDUM

ROP Number
MI-ROP-B6619-2024

Purpose

A Staff Report dated March 11, 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:	Robert Slikers, President 616-392-7163
AQD Contact:	Cody Yazzie, Environmental Engineer 269-312-2754

Summary of Pertinent Comments

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

Changes to the January 22, 2024 Draft ROP

No changes were made to the draft ROP.