

**DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION  
ACTIVITY REPORT: On-site Inspection**

B661960158

FACILITY: Tiara Yachts Division of S2 Yachts		SRN / ID: B6619
LOCATION: 725 E. 40th St., HOLLAND		DISTRICT: Kalamazoo
CITY: HOLLAND		COUNTY: ALLEGAN
CONTACT: Todd Grammatico, Environmental Health & Safety Manager		ACTIVITY DATE: 08/30/2021
STAFF: Cody Yazzie	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Unannounced Inspection		
RESOLVED COMPLAINTS:		

On August 30, 2021 Air Quality Division (AQD) staff (Cody Yazzie) arrived at 725 East 40<sup>th</sup> Street, Holland Michigan at 1:30 PM to conduct an unannounced air quality inspection of Tiara Yachts Division of S2 (hereafter Tiara Yachts). Staff made initial contact with the office receptionist and stated the purpose of the visit. Todd Grammatico, Tiara Yachts, Employee Safety and Wellness Coordinator, is typically the environmental contact for Tiara Yacht, but was unavailable for this inspection. Jeff Pfof, Environmental Partners, is the environmental consultant for Tiara Yachts. Mr. Pfof arrived shortly Staff's arrival and took staff to a conference room for further discussions. Mr. Pfof along with Kyle Tucker, Tiara Yachts, Maintenance, accompanied Staff for the facility tour.

Tiara Yachts manufactures various style boats models that include the Tiara Series, Flybridge Series, Coupe Series, and the Sport Series that range in length from 30 – 50 feet. Tiara Yachts has predesigned molds for the hulls and decks of the boats with the interior and paint being able to be customized by the customer. At the time of the inspection Tiara Yachts indicated that it manufactures about 190 boats per year. The facility operates 24 hours a day with 1 primary manufacturing shift. The manufacturing operation is 6 days per week. The facility had around 600 employees at the time of the inspection.

Tiara is currently in the middle of an ROP renewal cycle. The current ROP that the facility is operating under is MI-ROP-B6619-2015. This inspection review will reflect the current ROP requirements and discuss some naming changes that may be reflected in the future ROP.

Tiara Yachts utilizes a variety of processes to manufacture large or other fiberglass reinforced plastic components. These processes include fiberglass spray layup and other gelcoat spray layup for creating hulls, decks, and various other fiberglass portion of the boats of the other products. The facility used to manufacture other composite reinforced plastic operations that were not related to the boat manufacturing. These operations include the windmill blades. The facility stated that it has not manufactured the windmill blades in about four years.

The Facility is subject to 40 CFR Part 63 Subpart VVVV. This is the National Emission Standards for Hazardous (NESHAP) Air Pollutants for boat manufacturing. The ROP also includes the facility as being subject to 40 CFR Part 63 Subpart WWWW. This is the National Emission Standards for Hazardous Air Pollutants for Reinforced Plastic Composites Productions. Any reinforced plastic composites production that is not a part of the boat manufacturing process is subject to these regulations. The facility is currently only manufacturing boats. With the facility only currently manufacturing boats it appears that the NESHAP WWWW are not applicable to the facility at the time of the inspection.

Mr. Pfost gave Staff a tour of the facility. Required personal protective equipment are steel toe boots, safety glasses, and hearing protection. Staff observations and review of records provided during and following the inspection are summarized below:

#### EUHULLDECKGRINDING:

This emission unit is a single large booth that will allow three grinding booths to be operated simultaneously for hull and deck grinding. The filters of this booth are located within the dividers of the booths which share the filtration system. This system is required to be vented internally.

This emission unit currently has minimal special condition requirements. Special condition IV.1 requires the facility to not operate EUHULLDECGRINDING unless the mat/panel fabric filters are installed and operating properly. The filters that are installed for this unit are cone filters that draw the air through. During the inspection it was noted that one of the bays in the booth were being used for grinding but at the time of the inspection the filters were not operating. Staff asked Mr. Tucker if there was a reason the filtration system was not operating. Mr. Tucker stated the system should be operating. He was then able to remotely start up the filtration system. The issue appeared to be resolved during the inspection as the facility was able to start up the filtration system.

#### FGMOLDINGEMISSIONS:

This flexible is made up of the emission units that are responsible for the molding operations to produce the boats made at the facility. EUSOLVENT is used throughout the plant for cleanup operations associated composites production. The facility primarily uses acetone and Acrastrip for these cleanup operations. EUENGINEERING is associated with the making of the composite molds that are used in manufacturing.

During the ROP renewal and records review of this flexible group it was noted that the facility is using closed molding as a method of production. In utilizing the closed molding operations facility is assigning an emission factor of 1 percent of VOCs being emitted for when this method of operation is utilized. It was brought up during the ROP renewal process and as well as the inspection that FGMOLDINGEMISSIONS does not appear to have evaluated the closed molding operations as a part of the permitting process for these emission units. The District Office made the determination that because the closed molding operations were not evaluated through the New Source Review in the permitting process and established an acceptable and enforceable emission factor that the facility would need to either submit a permit modification for the closed molding operations to be evaluated and the closed molding emission factor be established. Tiara could also not submit a permit modification application and continue the closed molding operations but would have to change recordkeeping to not take credit for the 1 percent closed molding emission factor that it is currently using. Instead, the facility would have to use the established emission factors outlined in Appendix 7.

#### EUMOLDINGEQUIP:

This emission unit is required to maintain daily and monthly records of the composites resin and gelcoat operations used. The emission unit is required to preform the VOC emission calculations using the emission factors outlined in Appendix 7. Appendix 7 outlines that the facility is to use an emission factor of 13 percent of the VOC content, including styrene, for composite resin spray

lay-up. It is also noted that the facility should use 33 percent of the VOC content, including styrene, for gel-coat lay-up.

The facility is required to track and calculate 12-month rolling VOC emissions. Staff requested 12-month rolling records for January 2020 through July 2021. During this period the highest 12-month rolling VOC emissions were calculated to be 41.06 TPY in January 2020. This is below the permit limit of 76 TPY.

EUMOLDINGEUQIP is also required to calculate VOC emissions associated with the bulk tank storage on a pounds per hour and pounds per day basis. The facility is tracking both these emission rates. Staff requested records for the period of January 2020 through July 2021. During this time period the highest pounds per hour emission rate was recorded on January 15, 2020 in which it was 14.7 pounds per hour. The largest pounds per day emission rate occurred on January 15, 2020 in which the emission rate was 353.7 pounds per day. These are both well below the permit limit of 100 pounds per hour and 1,200 pounds per day.

This emission unit is located within a large room that has a connected ventilation system. The ventilation system is equipped with mat/fabric filters on the inlets of the systems. During the inspection Staff noted the condition of these filters as being in good operational condition without lots of build up or rips/tears.

#### EUENGINEERING:

This emission unit is required to maintain daily and monthly records of the composites resin and gelcoat operations used. The emission unit is required to perform the VOC emission calculations using the emission factors outlined in Appendix 7. Appendix 7 outlines that the facility is to use an emission factor of 13 percent of the VOC content, including styrene, for composite resin spray lay-up. It is also noted that the facility should use 33 percent of the VOC content, including styrene, for gel-coat lay-up.

The facility is required to track and calculate 12-month rolling VOC emissions. Staff requested 12-month rolling records for January 2020 through July 2021. During this period the highest 12-month rolling VOC emissions were calculated to be 1.38 TPY in October and November of 2020. This is below the permit limit of 5 TPY.

EUENGINEERING does have hourly and daily VOC limits as a part of FGMOLDINGEMISSIONS. Staff requested these records for the period of January 2020 through July 2021. During this time period the highest pounds per hour emission rate was recorded in May 2020 in which the daily average was 2.2 pounds per hour. The largest pounds per day emission rate occurred in May 2020 in which the daily average emission rate was 64 pounds per day. These are both well below the permit limit of 50 pounds per hour and 300 pounds per day.

During the inspection Staff noted the condition of the fabric filters located inside the booths. These filters appeared to be in good operational condition without lots of build up or rips/tears.

#### EUSOLVENT:

This emission unit has three separate material usage limits. The facility is has a Solvent material limit which is restricted to 15 TPY calculated on a 12-month rolling time period. Tiara has two

Acetone material limits. The facility is limited 16 tons/month of acetone calculated monthly as well as 190 TPY calculated on a 12-month rolling time period. The facility is tracking monthly and 12-month rolling usage for both Acetone and Solvent usage.

Staff requested records for the period of January 2020 through July 2021. Tiara Yachts reported that largest 12-month rolling Solvent usage occurred in January 2020 in which it used 7.10 TPY on the 12-month rolling time period. The largest monthly Acetone usage occurred in September 2020 in which it used 6.79 Tons. The largest 12-month rolling Acetone usage occurred in January 2020 in which the facility used 76.81 TPY. These are all below the permitted limits.

#### MACT VVVV HAP Limit:

As a part of the MACT VVVV the facility has two options for complying with the open molding emission limits specified in 40 CFR Part 63.5701. The facility can use Maximum achievable control technology (MACT) model point value averaging (emissions averaging) option or the compliant materials option. Tiara Yachts has elected to use the emissions averaging option. By using the emissions averaging option the facility demonstrates compliance on a 12-month rolling-average basis. The facility uses equation 1 in 40 CFR 63.5698 to calculate the HAP emissions limit. Since the equation is used to calculate the HAP limit and HAP emissions both vary month to month. The facility provided records for the period of January 2021 through June 2021. During this time period the facility was compliant with the Point Value System emission limit. Staff did also check the submitted NESHAP deviations reports that are submitted semi-annually and for all reports that were for January 2020 through December 2020 the reports appeared to report compliance and the Point Value System emission limit was never exceeded.

#### FGWOODCAM:

This flexible group is the Compliance Assurance Monitoring requirements for the woodworking equipment associated with EUWOODSHOP. EUWOODSHOP includes wood sawing, cutting, and sanding workstations used for constructing wooden boat parts. The woodworking equipment is controlled by a high efficiency Torit & Day fabric filter dust collector that exhaust back inside the facility. The dust collector is directly hooked up to waste bins outside the facility. The dust collector also is equipped with a magnehelic gauge that can be used to monitor the pressure drop across the bag house. Under this ROP this flexible group is currently subject to the CAM requirements.

As apart of these CAM requirements the facility is required to monitor the pressure drop across the dust collector, along with recording daily pressure drop and visible dust readings. The facility appears to be maintaining these records. During the inspection the pressure drop reading was noted as 2.0 inches of H<sub>2</sub>O. This is within the operational range specified in the CAM plan of 0.5 – 6.0 inches of H<sub>2</sub>O. In the facilities ROP certification the facility has reported that there have been no deviations or downtimes associated with this emission unit.

#### FGRULE287:

The facility has several emission units that operate under Rule 287(c). During this ROP renewal cycle the facility is wanting to make changes to the names that would reflect stack numbers that the emission unit is also associated with. The names in this report will reflect the discussed name

changes. The stack numbers/identification numbers are reflective of a stack map that was provided to staff during the inspection.

**EUUPHOLSTRYADH#55** is the new naming convention for the Upholstery Adhesive Booth. The facility is tracking gallons usage through this emission unit. Staff reviewed the records for January 2020 through July 2021. The facility appears to meet the requirements of Rule 287(c) with not exceeding 200 gallons per month minus water.

**EUMISCPAINT** is the naming convention discussed for the Paints & Misc Solvents emission unit. The facility is tracking gallons usage through this emission unit. Staff reviewed the records for January 2020 through July 2021. The facility appears to meet the requirements of Rule 287(c) with not exceeding 200 gallons per month minus water.

**EUWESTBOOTH#52** is the naming convention discussed for the West Parts Painting Booth. The facility is tracking gallons usage through this emission unit. Staff reviewed the records for January 2020 through July 2021. The facility appears to meet the requirements of Rule 287(c) with not exceeding 200 gallons per month minus water.

**EUEAST#51** is the naming convention discussed for the East Parts Painting Booth. The facility is tracking gallons usage through this emission unit. Staff reviewed the records for January 2020 through July 2021. The facility appears to meet the requirements of Rule 287(c) with not exceeding 200 gallons per month minus water.

**EUHULLPAINT#67-72** is the naming convention discussed for the Hull Painting Booth. The facility is tracking gallons usage through this emission unit. Staff reviewed the records for January 2020 through July 2021. The facility appears to meet the requirements of Rule 287(c) with not exceeding 200 gallons per month minus water.

**EUWBVARNISH#73-76** is the naming convention discussed for the Auto Varnish operation. The facility is tracking gallons usage through this emission unit in addition to gallons minus water. Staff reviewed the records for January 2020 through July 2021. The facility appears to meet the requirements of Rule 287(c) with not exceeding 200 gallons per month minus water.

**EUMANUALWOODFINISH#53** is the naming convention discussed for the sanding and sealing emission unit. The facility is tracking gallons usage through this emission unit. Staff reviewed the records for January 2020 through July 2021. The facility appears to meet the requirements of Rule 287(c) with not exceeding 200 gallons per month minus water.

#### **FGRULE290:**

The facility has two emission units that the facility operates under Rule 290. The two groups tracked are **EUFASEALANTS** and **EUWOODFINISHING**. **EUFASEALANTS** are recorded as Adhesives Caulks & Sealers under Tiara Yacht's recordkeeping. **EUWOODFINISHING** are recorded as Assembly Wood Finishing in Tiara Yacht's recordkeeping.

The facility is tracking monthly emissions from these emission units. The facility appears to have categorized the emissions from these emission units as non-carcinogenic VOCs. This gives the facility 1,000 lbs per month per emission unit. The monthly non-carcinogenic emissions have averaged around 1-7 pounds per month for **EUWOODFINISHING** from January 2020 through July

2021. The emissions for EUFASEALANTS ranged from around 45 – 219.8 pounds in 2020 for EUFASEALANTS. The records for 2021 in EUFASEALANTS have had a much more consistent range of 218 – 340 pounds. These are all below the 1000 lbs. per month limit categorized by the non-carcinogenic VOC's in Rule 290.

BOILERS and Emergency Generator:

The facility has two boilers. Both boilers appear to be exempt under Rule 282(2)(b)(i). The boilers have two different Maximum Heat Input Capacities. The 3.05 MMBTU/hour operates on natural gas and was manufactured December 2005. This is used for space heating. The 1.05 MMBTU/hour boiler is fueled by natural gas and manufactured in August 2007. This boiler is used to heat the pavement bricks in the parking lot.

The facility also has an emergency generator that is being added to the ROP in this Renewal. The emergency generator is fueled by natural gas. Staff looked at the generator during the inspection. Staff noted that the generator nameplate indicated that the braking horsepower was 126 HP. This generator is a 2007 Cummins power generator Model #GGHF-5786312. The engine hours on the non-resettable hour meter were noted as 311.3 hours.

At the time of the inspection and based on a review of records obtained during or following the inspection, the Kalamazoo District Office has made the determination that the 1 percent of VOC emission factor used for closed molding operations is not an acceptable or enforceable emission factor to be used in the VOC calculations for FGMOLDINGEMISSIONS. As noted previously, the AQD expects Tiara Yachts to resolve this recordkeeping issue through applying for a permit modification that evaluates closed molding emissions to establish an acceptable and enforceable emission factor for the operations, or not take credit for the 1 percent emission factor and change the recordkeeping of the closed molding emissions to reflect the emission factors established in Appendix 7. The expectation from AQD is that Tiara Yachts pursue either of the identified methods to resolve the recordkeeping issue. Besides the recordkeeping issue identified the facility appears to be in compliance with MI-ROP-B6619-2015. Staff stated to Mr. Pfost and Mr. Tucker that a report of the inspection would be sent to the facility for their records. Staff concluded the inspection at 4:00 PM.-CJY

NAME Cody Young

DATE 9/28/21

SUPERVISOR RIL 9/28/21