MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
AIR QUALITY DIVISION

June 21, 2023

PERMIT TO INSTALL
77-23

ISSUED TO
Tiara Yachts

LOCATED AT
725 East 40th Street
Holland, Michigan 49423

IN THE COUNTY OF
Allegan

STATE REGISTRATION NUMBER
B6619

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environment, Great Lakes, and Energy. This permit is hereby issued in accordance with and subject to Section 5505(1) of Article II, Chapter I, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Pursuant to Air Pollution Control Rule 336.1201(1), this permit constitutes the permittee's authority to install the identified emission unit(s) in accordance with all administrative rules of the Department and the attached conditions. Operation of the emission unit(s) identified in this Permit to Install is allowed pursuant to Rule 336.1201(6).

DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203: **May 24, 2023**	
DATE PERMIT TO INSTALL APPROVED: **June 21, 2023**	SIGNATURE:
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

PERMIT TO INSTALL

Table of Contents

COMMON ACRONYMS

AQD	Air Quality Division
BACT	Best Available Control Technology
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
COMS	Continuous Opacity Monitoring System
Department/department/EGLE	Michigan Department of Environment, Great Lakes, and Energy
EU	Emission Unit
FG	Flexible Group
GACS	Gallons of Applied Coating Solids
GC	General Condition
GHGs	Greenhouse Gases
HVLP	High Volume Low Pressure*
ID	Identification
IRSL	Initial Risk Screening Level
ITSL	Initial Threshold Screening Level
LAER	Lowest Achievable Emission Rate
MACT	Maximum Achievable Control Technology
MAERS	Michigan Air Emissions Reporting System
MAP	Malfunction Abatement Plan
MSDS	Material Safety Data Sheet
NA	Not Applicable
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standard for Hazardous Air Pollutants
NSPS	New Source Performance Standards
NSR	New Source Review
PS	Performance Specification
PSD	Prevention of Significant Deterioration
PTE	Permanent Total Enclosure
PTI	Permit to Install
RACT	Reasonable Available Control Technology
ROP	Renewable Operating Permit
SC	Special Condition
SCR	Selective Catalytic Reduction
SNCR	Selective Non-Catalytic Reduction
SRN	State Registration Number
TBD	To Be Determined
TEQ	Toxicity Equivalence Quotient
USEPA/EPA	United States Environmental Protection Agency
VE	Visible Emissions

*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 psig.

POLLUTANT / MEASUREMENT ABBREVIATIONS

acfm	Actual cubic feet per minute
BTU	British Thermal Unit
°C	Degrees Celsius
CO	Carbon Monoxide
CO_2e	Carbon Dioxide Equivalent
dscf	Dry standard cubic foot
dscm	Dry standard cubic meter
°F	Degrees Fahrenheit
gr	Grains
HAP	Hazardous Air Pollutant
Hg	Mercury
hr	Hour
HP	Horsepower
H_2S	Hydrogen Sulfide
kW	Kilowatt
lb	Pound
m	Meter
mg	Milligram
mm	Millimeter
MM	Million
MW	Megawatts
NMOC	Non-Methane Organic Compounds
NO_x	Oxides of Nitrogen
ng	Nanogram
PM	Particulate Matter
PM10	Particulate Matter equal to or less than 10 microns in diameter
PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
pph	Pounds per hour
ppm	Parts per million
ppmv	Parts per million by volume
ppmw	Parts per million by weight
psia	Pounds per square inch absolute
psig	Pounds per square inch gauge
scf	Standard cubic feet
sec	Seconds
SO_2	Sulfur Dioxide
TAC	Toxic Air Contaminant
Temp	Temperature
THC	Total Hydrocarbons
tpy	Tons per year
µg	Microgram
µm	Micrometer or Micron
VOC	Volatile Organic Compounds
yr	Year

GENERAL CONDITIONS

1. The process or process equipment covered by this permit shall not be reconstructed, relocated, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule. **(R 336.1201(1))**

2. If the installation, construction, reconstruction, relocation, or modification of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environment, Great Lakes, and Energy, P.O. Box 30260, Lansing, Michigan 48909-7760, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. **(R 336.1201(4))**

3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to Rule 210 (R 336.1210), operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. **(R 336.1201(6)(b))**

4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. **(R 336.1201(8), Section 5510 of Act 451, PA 1994)**

5. The terms and conditions of this Permit to Install shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to Rule 219 and the Department approves the request, this permit will be amended to reflect the change of ownership or operational control. The request must include all of the information required by subrules (1)(a), (b), and (c) of Rule 219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environment, Great Lakes, and Energy. **(R 336.1219)**

6. Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. **(R 336.1901)**

7. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal condition or malfunction has been corrected, or within 30 days of discovery of the abnormal condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). **(R 336.1912)**

8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended or the Federal Clean Air Act.

9. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.

10. Operation of this equipment may be subject to other requirements of Part 55 of 1994 PA 451, as amended and the rules promulgated thereunder.

11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of Rule 301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with Rule 303 (R 336.1303). **(R 336.1301)**
    a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
    b) A visible emission limit specified by an applicable federal new source performance standard.
    c) A visible emission limit specified as a condition of this Permit to Install.

12. Collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in Rule 370(2). **(R 336.1370)**

13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001. **(R 336.2001)**

EMISSION UNIT SPECIAL CONDITIONS

EMISSION UNIT SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date / Modification Date	Flexible Group ID
EUMOLDINGEQUIP	Group includes composites reinforced plastic (composites) molding operations for the production of boats or other reinforced plastic composite parts. The composites parts are produced throughout the facility and production may take place in individual booths or on the production floor in an open floor arrangement.	08-29-85 12-03-97 05-04-06 06-21-23	FGMOLDINGEMISSIONS FGMACTVVVV
EUENGINEERING	Two composite booths with mat/panel filters (engineering booths) and associated clean-up solvents.	04-24-79 12-03-97 05-04-06	FGMOLDINGEMISSIONS FGMACTVVVV
EUSOLVENT	Solvents (primarily acetone and other non-halogenated solvents) are used throughout the facility for cleanup operations associated with composites production. Amount used exceeds the exemption threshold provided in Rule 290.	01-01-68 12-03-97 05-04-06	FGMOLDINGEMISSIONS FGMACTVVVV

Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1291.

FLEXIBLE GROUP SPECIAL CONDITIONS

FLEXIBLE GROUP SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGMOLDINGEMISSIONS	EUMOLDINGEQUIP - Group includes composites reinforced plastic (composites) molding operations for the production of boats or other reinforced plastic composite parts. The composites parts are produced throughout the facility and production may take place in individual booths or on the production floor in an open floor arrangement. EUENGINEERING - Two composites booths with mat/panel filters (engineering booths) and associated clean-up solvents. EUSOLVENT - Solvents (primarily acetone and other non-halogenated solvents) are used throughout the facility for cleanup operations associated with composites production and boat cleanup prior to shipment. Amount used exceeds the exemption threshold provided in Rule 290. Mat/panel filters are used with the booths.	EUMOLDINGEQUIP EUENGINEERING EUSOLVENT

FGMOLDINGEMISSIONS
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

EUMOLDINGEQUIP - Group includes existing composites reinforced plastic (composites) molding operations for the production of boats or other reinforced plastic composite parts. The composites parts are produced throughout the facility and production may take place in individual booths or on the production floor in an open floor arrangement.

EUENGINEERING – Two existing composites booths with mat/panel filters (engineering booths) and associated clean-up solvents.

EUSOLVENT- Solvents (primarily acetone and other non-halogenated solvents) are used throughout the plant for cleanup operations associated with composites production. Amount used exceeds the exemption threshold provided in Rule 290.

Mat/panel filters are used with the booths.

Emission Unit: EUMOLDINGEQUIP, EUENGINEERING, EUSOLVENT

POLLUTION CONTROL EQUIPMENT

Mat/panel filters are used with the booths.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. VOC	100 pph[1]	Daily average	EUMOLDINGEQUIP	SC VI.1 and SC VI.2	**R 336.1225**
2. VOC	1,200 lbs/day[1]	Daily average	EUMOLDINGEQUIP	SC VI.1 and SC VI.2	**R 336.1225**
3. VOC	76 TPY	12-month rolling time period as determined at the end of each calendar month	EUMOLDINGEQUIP	SC VI.2	**R 336.1702(a)**
4. VOC	50 pph[1]	Daily average	EUENGINEERING	SC VI.2	**R 336.1225**
5. VOC	300 lbs/day[1]	Daily average	EUENGINEERING	SC VI.2	**R 336.1225**
6. VOC	5 TPY	12-month rolling time period as determined at the end of each calendar month	EUENGINEERING	SC VI.2	**R 336.1702(a)**

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Solvent	15 TPY	12-month rolling time period as determined at the end of each calendar month	EUSOLVENT	SC VI.3	**R 336.1702(a)**
2. Acetone	16 tons/month[1]	Calendar month	EUSOLVENT	SC VI.3	**R 336.1225**
3. Acetone	190 TPY[1]	12-month rolling time period as determined at the end of each calendar month	EUSOLVENT	SC VI.3	**R 336.1225**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. Each fiberglass lay-up booth associated with FGMOLDINGEMISSIONS shall not be operated unless its respective mat/panel filter is installed and operating properly. **(R 336.1910)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Daily records of the following for EUMOLDINGEQUIP composites resin/gelcoat operations:
   a) Fiberglass resin usage, in pounds, as monitored in the bulk storage tank.
   b) Hours of operation.
   c) VOC content (including styrene) of the resin in the bulk storage tank, in pounds per gallon or as a weight percentage.
   d) Calculations determining the daily VOC emission rate (including styrene) in pounds per day based upon the resin usage from the bulk storage tank.
   e) Calculations determining the average hourly VOC emission rate based upon hours of operation.

   The records shall be kept in the format specified in Appendix 4a or an alternative format may be submitted to the District Supervisor, Air Quality Division, for approval.[1] (**R 336.1225)**

2. Monthly records of the following for EUMOLDINGEQUIP and EUENGINEERING composites resin/gelcoat operations:
   a) Amount (in pounds) of each resin, gelcoat, catalyst, etc. used in EUMOLDINGEQUIP.
   b) Amount (in pounds) of each resin, gelcoat, catalyst, etc. used in EUENGINEERING.
   c) Hours of operation for EUMOLDINGEQUIP and EUENGINEERING.
   d) VOC content (including styrene) of each resin, gelcoat, catalyst, etc., in pounds per gallon or as a weight percentage.
   e) Calculations determining the total average daily VOC emission rates (including styrene) based upon hours of operation for EUMOLDINGEQUIP and EUENGINEERING separately.
   f) Calculations determining the total VOC emission rate (including styrene) in tons per month and in tons per 12-month rolling time period for EUMOLDINGEQUIP and EUENGINEERING separately.

The records shall be kept in the format specified in Appendix 4b or an alternative format may be submitted to the District Supervisor, Air Quality Division, for approval. **(R 336.1225, R 336.1702(a))**

3. Monthly records of the following for miscellaneous purge and clean-up operations for EUSOLVENT:
   a) Amount of acetone used and reclaimed in gallons.
   b) Total acetone emissions in tons per month and tons per 12-month rolling time period.
   c) Amount of cleaning solvents used and reclaimed in gallons.
   d) VOC content of cleaning solvents in pounds per gallon.
   e) Calculations determining the entire VOC emission rate due to the use of clean-up and purge solvents in tons per month and in tons per 12-month rolling time period.

   The records shall be kept in the format specified in Appendix 4c or an alternative format may be submitted to the District Supervisor, Air Quality Division, for approval.[1] (**R 336.1225)**

See Appendices 4a, 4b, 4c

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVSTACK001 through SVSTACK0031, SVSTACK037 and SVSTACK038	42	41.8	**R 336.1225, R 336.1901, 40 CFR 52.21(c) & (d)**
2. SVSTACK039	42	43.3	**R 336.1225, R 336.1901, 40 CFR 52.21(c) & (d)**
3. SVSTACK041 and SVSTACK042	42	28	**R 336.1225, R 336.1901, 40 CFR 52.21(c) & (d)**
4. SVEF-1 through SVEF-8	30.5 (each)	45.6 (each)	**R 336.1225, R 336.1901, 40 CFR 52.21(c) & (d)**

IX. OTHER REQUIREMENT(S)

1. All waste resins, gelcoats, catalysts, acetone, and cleaning solvents shall be captured and stored in closed containers and be disposed of in an acceptable manner in compliance with all applicable rules and regulations. **(R 336.1370)**

2. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart VVVV for Boat Manufacturing. **(40 CFR Part 63, Subparts A and VVVV)**

Footnotes:
[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

APPENDIX 4 Recordkeeping

The permittee shall use the following approved formats and procedures for the recordkeeping requirements referenced in FGMOLDINGEMISSIONS. Alternative formats must be approved by the AQD District Supervisor.

APPENDIX 4a

DATE:_____

Resin Identification	A Amount Used (Pounds)	B VOC Content (% by weight)	C Emission Factor[1]	D = AxBxC VOC Emissions	E Hours of Operation	F = D/E Hourly Emissions

TOTAL TONS VOC EMITTED, G = SUM OF		TOTAL--->	
12 MONTH ROLLING PERIOD TONS, G^2 --->			
12 MONTH ROLLING PERIOD LIMIT, TONS --->			

Notes:

1. Emission Factors = 0.13 for Open Molding Resin Operations, 0.01 for Closed Molding Resin Operations, 0.33 for Gelcoat Operations, and 0.0 for MEKP catalyst
2. 12 Month Rolling Period = TOTAL OF PREVIOUS ELEVEN MONTHS + Current Month

APPENDIX 4b

MONTH/YEAR:_____

	A	B	C	D = AxBxC	E	F = D/(E/16)
Resin, Gel-coat, Catalyst, Etc. Identification	Amount Used (Pounds)	VOC Content (% by weight)	Emission Factor[1]	VOC Emissions (Pounds)	Hours of Operation	Daily Emissions
	TOTAL TONS VOC EMITTED, G = SUM OF				TOTAL-->	
	12 MONTH ROLLING PERIOD TONS, G^2 --->					
	12 MONTH ROLLING PERIOD LIMIT, TONS --->					

Notes:

1. Emission Factors = 0.13 for Open Molding Resin Operations, 0.01 for Closed Molding Resin Operations, 0.33 for Gelcoat Operations, and 0.0 for MEKP catalyst
2. 12 Month Rolling Period = TOTAL OF PREVIOUS ELEVEN MONTHS + Current Month

APPENDIX 4c

MONTH/YEAR:_____

	A	B	C	D=A(B-C)
Cleanup or purge solvent with Acetone	Lbs of Acetone per gallon of solvent (or as weight % /100)	Actual gallons of solvent used	Gallons of solvent reclaimed	Lbs of Acetone

Total tons of Acetone emitted from solvent, E = sum of all D's/2000	E	
12 month rolling period, F = total of 11 previous months + E	F	

	G	H	I	J=G(H-I)
Cleanup or purge solvent	Lbs of VOCs per gallon of solvent	Actual gallons of solvent used	Gallons of solvent reclaimed	Lbs of VOC