

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

N511464612

FACILITY: Trident Maritime Inc.	SRN / ID: N5114
LOCATION: 1150 W US 2, IRON RIVER	DISTRICT: Marquette
CITY: IRON RIVER	COUNTY: IRON
CONTACT: Jake Bishop (10/4/2016) , Contact	ACTIVITY DATE: 07/28/2022
STAFF: Joe Scanlan	COMPLIANCE STATUS: Compliance
SUBJECT: Unannounced inspection to determine compliance with PTI 31-92 and PTI 467-94 and all applicable state and federal air pollution control rules.	SOURCE CLASS: MINOR
RESOLVED COMPLAINTS:	

REGULATORY AUTHORITY

Under the Authority of Section 5526 of Part 55 of NREPA, the Department of Environment, Great Lakes, and Energy may upon the presentation of their card, and stating the authority and purpose of the investigation, enter and inspect any property at reasonable times for the purpose of investigating either an actual or suspected source of air pollution or ascertaining compliance or noncompliance with NREPA, Rules promulgated thereunder, and the federal Clean Air Act.

PROCESS DESCRIPTION

Trident Maritime Systems assembles and tests large metal machinery and components for industrial, commercial and defense marine and mining applications. Various types of equipment include winches, cranes, davits, elevators, windlasses and other material handling equipment. Equipment parts are primarily steel; some incidental parts are bronze or aluminum.

The facility maintains two air use permits: PTI #31-92 is for the shot booth and PTI #467-94 is for the paint spray booth. Only steel parts are subjected to the blasting and painting processes. Metal is blast-cleaned to remove welding burrs, mill-scale and light rust as a preparation for primers and final coats of paint. The spray booths are used only for applying primers and paints. Thinners are used as necessary to achieve correct mill thickness coverages.

REGULATORY ANALYSIS & EMISSIONS

PTI 31-92 is for the shot blast booth and is subject to Rules 301 and 331 for Particulate Matter emissions. The shot blast booth uses metal shot as a blasting medium and a shot reclaim system. Spent metal shot falls through grating on the floor of the blast booth. During the reclamation process, the shot is sorted for reuse. Heavier shot is reused in the booth and shot fines are sent to the baghouse. The baghouse has 280 bags with two hoppers, each with a drop tube connected to a 55-gallon drum beneath. The drop tubes have a slide gate which is opened to remove the fines from the baghouse hoppers to deposit in the drums.

PTI 467-94 is for the paint spray booth and is subject to Rule 621 for minor VOC emissions. The paint booth is a DeVILBLISS TURBOCLEAN SPRAYBOOTH. The 50'x24'x14' booth was installed in May 1990 and originally had waterfall filtration; however, the waterfall filtration has been discontinued and dry filter media is used instead.

A water table plasma-cutting unit is exempt from PTI requirements under Rule 285(2)(I)(vi)(B). The water traps dust and smoke. The unit is vented to the indoor atmosphere of the facility.

This facility is not required to report to MAERS.

COMPLIANCE

The facility has remained compliant with all PTI conditions in recent inspections. No complaints or violations on file in the last 10 years.

INSPECTION

On 7-28-22 AQD staff Joseph Scanlan arrived at the facility and met with maintenance staff Brian Benda. Brian proceeded to guide me on a tour of the facility. We inspected the baghouse, shot blast booth, paint booth, and plasma cutter.

PTI 31-92

SC16 Visible emissions from the blast booth shall not exceed a 6-minute average of 5% opacity:

- In compliance. No visible emissions were observed from the baghouse during the inspection and no fugitive media was observed near the unit.

SC17 Shall not operate the blast booth unless the baghouse is installed and operating properly:

- In compliance. In late May 2022, all 280 bags were cleaned and a few were changed in the shot booth baghouse. Spare bags are kept on hand for replacement if needed. The facility tries to replace all bags every three to five years.

SC18 Disposal of collected air contaminants shall be performed in a manner which minimizes the introduction of air contaminants to the outer air:

- In compliance. Used shot is collected and disposed through A&L Recycling and fines are collected via GFL Disposal and disposed in a licensed landfill.

SC19 Shall install and maintain a four-sided enclosure around the base of the baghouse:

- In compliance. The base of the baghouse has a four-sided enclosure surrounding the baghouse hoppers and 55-gallon drums.

PTI 467-94

SC15 VOC emissions from paint booth shall not exceed 15.0 pounds per hour (lbs/hr) nor 30.0 tons per year (tpy) based on a 12-month rolling average:

- In compliance. The facility submits quarterly Volatile Organic Compound Emissions Reports. Second Quarter 2022 total paint VOC emissions are 0.197 lbs/hr and 0.866 tpy. The emissions are well below permitted limits.

SC16 VOC emissions from solvent cleanup operations shall not exceed 15.0 lbs/hr nor 6.0 tpy:

- In compliance. The facility submits quarterly Volatile Organic Compound Emissions Reports. Second Quarter 2022 total solvent VOC emissions are 0.037 lbs/hr and 0.164 tpy. The emissions are well below permitted limits.

SC17 Shall recover and reclaim, recycle, or dispose of cleanup solvents in accordance with applicable regulations:

- In compliance. All remaining solvents collected and disposed of by GFL Disposal.

SC18 VOC emissions shall not exceed applicable VOC limits specified in Rule 621(1) on a calendar day average basis:

- Rule 621(1)(b) Three and one-half pounds of volatile organic compounds emitted per gallon of coating, minus water, as applied for air-dried coatings:
 - Based on daily records provided by the company, random days were selected to determine VOC emissions. No days selected were over 3lbs/gal of paint; the highest calendar day average out of 5 days selected was 2.9 lbs/gal. Records are attached to this report and on file in the district office.

SC19 There shall be no visible emissions from the paint booth:

- In Compliance. No visible emissions were observed during the inspection.

SC20 Verification of VOCs may be required by testing for operating approval:

- Not applicable at this time. No testing was required at the time of permitting or has been requested.

SC21

- A. Shall keep records of gallons of monthly coatings applied, VOC content of coatings, reducers, and catalysts in lbs/gallon:
 - In compliance. The facility submits quarterly Volatile Organic Compound Emissions Reports containing monthly total paint gallons applied and monthly total paint VOCs in lbs/gallon. Total paint gallons used for June 2022 were 108 gallons; total VOCs were 319.6 lbs/gallon.
- B. Shall keep average VOC emissions of coatings in lbs/gallon for each calendar day:
 - The company keeps extensive records of daily paint and thinner usage. Records provided by the company are adequate. Records are attached to this report and on file in the district office.
- C. Shall keep mass VOC emissions of coatings for each calendar month in tons and a 12-month rolling average in tons per year (tpy):
 - In compliance. The facility submits this information in the quarterly VOC reports. The facility reported 0.159 tons of VOC for the month of June 2022 and the VOC 12-month rolling average was 0.866 tpy.

SC22

- A. Shall keep monthly records of solvent used in gallons and the amount of solvent reclaimed in gallons:
 - In compliance. The facility submits this information in the quarterly VOC reports. For the month of June 2022, the facility used 12.02 gallons and reclaimed 45.15 gallons.
- B. Mass VOC emissions of solvent per month in tons:
 - In compliance. The facility submits this information in the quarterly VOC reports. The facility reported solvent VOC emissions of 0.035 tons for June 2022.

SC23 Shall not operate the paint booth unless the water wash particulate filtration system is installed and operating properly:

- This system wash discontinued many years ago. Dry filter media is now utilized. The filter media is changed weekly or as necessary. If filter media is not maintained the quality of coatings application is greatly reduced, so the facility is adamant about maintaining the filters for adequate air flow.

SC24 Shall equip and maintain the paint booth with high volume low pressure (HVLP) spray guns:

- In compliance. The facility continues to use HVLP spray guns.

SC25 Disposal of collected air contaminants, waste coatings and cleanup solvents shall be disposed of properly

- In compliance. All used filter media is placed in the dumpster for disposal via GFL Disposal. Waste coatings and cleanup solvents are disposed of via GFL Disposal.

SC26 The two paint booth exhaust stacks shall have a maximum diameter of 42" and a minimum height of 32' above ground level:

- AQD staff did not confirm stack diameter/height during the inspection, however the stacks have not been altered since the original installation.

Plasma Cutting

The water table plasma cutter was not in use at the time of inspection. The water traps dust and smoke during the cutting process, there is no mechanical exhaust system. The unit is located within the plant environment.

CONCLUSION

Based on the inspection and records reviewed, the facility appears to be in compliance with PTI No. 31-92 and PTI No. 467-94 and all other applicable state and federal air pollution control rules.

NAME 

DATE 10/7/2022

SUPERVISOR 