

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection

N090443813

FACILITY: AVALON & TAHOE MFG		SRN / ID: N0904
LOCATION: 903 E MICHIGAN AVE, ALMA		DISTRICT: Lansing
CITY: ALMA		COUNTY: GRATIOT
CONTACT: Jim Blick , Facility & Engineering Manager		ACTIVITY DATE: 03/26/2018
STAFF: Michelle Luplow	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Unannounced, scheduled inspection to determine compliance with PTI 962-85		
RESOLVED COMPLAINTS:		

Inspected by: Michelle Luplow (author) and Kelly Richart (AQD LDO Inspector)

Personnel Present: Jim Blick, Facility and Engineering Manager (jimb@avalonpontoons.com)

Purpose:

Conduct an unannounced, scheduled compliance inspection of Avalon & Tahoe, to determine compliance with active PTI 962-85. The last inspection here was conducted in July 2012.

Facility Background:

Avalon & Tahoe (Avalon) constructs luxury pontoon boats and fishing boats out of aluminum parts. They operate 1 10-hour shift per work day. They currently can produce 18-20 boats per day. All furniture construction and assembly of the boats are conducted here.

PTI 962-85 is currently active, although, according to the last inspection, it was voided. I verified with Jim Blick, Facility and Engineering Manager, that this equipment (the metal to Styrofoam bonding machine) has been removed. I will request that PTI 962-85 be voided because the equipment has been removed.

The facility is divided into 3 buildings, A, B, and C. Expansions of A and B buildings have been constructed and are considered by Avalon as buildings "new" A and "new" B. Buildings A and B are purposed for assembly and building C is used for parts, upholstery, the wood shop and receiving. See attached maps.

Inspection:

Kelly Richart and I arrived at Avalon at approximately 8:20 a.m. March 26, 2018 and met with Jim Blick. I provided him with a January 2017 Permit to Install exemptions handbook, and explained that the handbook discusses all emission units that do not require an air permit to install.

J. Blick verified that there are no emergency generators, boilers, or parts washers on site. He did mention that they were considering installing an emergency generator and powder coat booths. I circled the exemptions in the Permit to Install Exemptions handbook that may apply to these emission units and I encouraged him to review the Permit to Install Exemptions Handbook in addition to calling me with any questions prior to installation.

The following table lists all current exempt equipment. There is no permitted equipment at this facility.

Emission Unit	Description	Exemption	Compliance Status
80 Welding Stations	NA	Rule 285(2)(i)	Compliance
Units for bending and rolling of aluminum	NA	Rule 285(2)(l)(i)	Compliance
Sawing of aluminum, cutting of foam	These units are vented into the general in-plant environment only	Rule 285(2)(l)(vi)(B)	Compliance
Table saw, band saw, routers	Equipment used for construction of pontoon wood furniture Wood particulate is controlled by a cyclone located outside.	Rule 285(2)(l)(vi)(C)	TBD

5 Wood Routers	Controlled by cartridge filters, but does not exhaust to outdoor ambient air, only to in-plant environment	Rule 285(2)(l)(vi)(B)	Compliance
Nose Cone Expanding foam	2-part reactive foam injection into pontoons for buoyancy Resin + dipheylmethane -4,4'-diisocyanate (MDI) SDS attached	Rule 286(2)(e)	Compliance
6 hand-applicator spray glue stations	Used for bonding upholstery to foam	Rule 287(2)(c)	Compliance
2 roll-on glue stations	1 station is used for carpet flooring glue application 1 station is used for vinyl flooring glue application	Rule 287(2)(c) Rule 290	Compliance Compliance
Portable natural gas-fired power washer	Used for washing trucks 2 MMBTU/hr	Rule 285(2)(g)	Compliance
4 (four) propane-fired heat guns	Used to mold shrink wrap to completed pontoon boats	Rule 282(2)(b)(i)	Compliance
3000 gallon diesel tank 300 gallon off-road diesel tank	Storage of diesel fuel	Rule 284(2)(d)	Compliance
1000 gallon gasoline tank	Storage of gasoline for dispensing to onsite trucks	Rule 284(2)(g)(ii)	Compliance

Exemption Emission Discussion

The following is a discussion of the emission units that are conditionally exempt.

Table saw, band saw and router wood particulate collection under Rule 285(2)(l)(vi)(C)

These pieces of equipment have local exhaust ventilation that pull particulate from the working area to a cyclone located outside the building. The larger wood particulate is captured at the bottom of the cyclone, while the fine particulate, along with return flow process air is circulated back into the in-plant environment. Within the building are two bag filters that are used to filter fine particulate-laden air returning from the cyclone before it is discharged into the indoor air. The fine particulate from the bag filters is collected into 2 55-gallon drums, that are directly connected to the bag filters.

J. Blick said the bin currently under the cyclone is not used for collecting particulate. When it is time to clean out the cyclone, he said a 1-yard dumpster is placed underneath. I mentioned that I was concerned wood particulate would get entrained into the ambient air from this process. J. Blick said that he would view this process the next time the cyclone needs to be cleaned, video taping it, and provide the video to me in order for me to determine if they need to install additional measures, such as a sock our telescopic chute from the cyclone exit point, to ensure that the collected particulate does not become airborne.

Compliance will be determined once J. Blick provides additional information on the collection of the particulate from the cyclone. I did not notice any wood particulate on the ground surrounding the cyclone during the inspection.

Six Manual Spray Applicator Gun Glue Stations under Rule 287(2)(c)

These emission units are only vented to the in-plant environment and were evaluated under Rule 287(2)(a), Rule Rule 290, and 287(2)(c). J. Blick said that each station uses 3.66 gallons of adhesive per day, which would exceed the less than 2 gallon per day limit of Rule 287(2)(a). Rule 290 was also evaluated: at 440 gallons per month (110 gallons per week for all stations) and 4.85 lb/gal VOC content, total VOC's emitted on a monthly basis is 2,134 lbs of VOC, exceeding the 1000 lb VOC threshold of Rule 290. The units were then evaluated under Rule 287(2)(c): the 110 gallons per week, extrapolated to 440 gallons per month, and divided among 5 spray applicator stations (1 is not used as much), provides a conservative estimate of 88 gallons per month per station. J. Blick said this adhesive contains no water, and therefore the 88 gallons is representative of "without water" for the exemption demonstration. Each station is allowed 200 gallons per month and therefore meets the exemption criteria.

2 Roll-on Glue Stations: Vinyl flooring glue application and Carpet flooring glue application

Carpet flooring glue is applied manual (no spray). Usage of carpet flooring glue is approximately 129 gallons per month and can be exempt under Rule 287(2)(c) because the usage is less than 200 gallons per month.

Vinyl flooring glue is also manual roll-on application. J. Blick said that vinyl flooring glue is used at a rate of approximately 990 gallons per month. Rule 287(2)(c) cannot be used as an exemption because glue usage rate exceeds 200 gallons per month minus water.

Rule 290 allows emissions rates up to 1000 lbs VOC per month. The VOC content, according to manufacturer's Technical Data Sheet is 5.97 g/L or approximately 0.05 lb/gal. From the 990 gallon usage rate, this would equate to 49.3 lbs of VOC per month, meeting the requirements under Rule 290. I will provide J. Blick with guidance on recordkeeping under Rule 290, specifically for VOC calculations.

Compliance Statement

Avalon and Tahoe is currently in compliance with AQD Exemption Rules.

NAME Mediam SpinaDATE 4/13/18SUPERVISOR J. Blick

