

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

B202532997

FACILITY: Aquatic Co		SRN / ID: B2025
LOCATION: 888 W BROADWAY RD, THREE RIVERS		DISTRICT: Kalamazoo
CITY: THREE RIVERS		COUNTY: SAINT JOSEPH
CONTACT: Joe Hutson , Plant Superintendent		ACTIVITY DATE: 01/14/2016
STAFF: Dennis Dunlap	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Scheduled inspection.		
RESOLVED COMPLAINTS:		

This was not an announced inspection. Sarah Mercer is the contact person. However, because Ms. Mercer was gone, Joe Hutson was the contact. The inspection brochure was handed out. There are 2 ten hour shifts Monday through Friday. There are about 120 full time employees. The product is showers and bathtubs.

Records were looked at first, which included the last 12 months of data going back from Dec. 2015. The record keeping for the MACT WWWW is based on a 12 month rolling average. Based on the records the facility was in compliance with the emission limits. On the record keeping sheet this is 12 mo avg% of WAEL. In Jan. 2015 and part of Feb. 2015 the RTO was down because of frozen lines and was in bypass mode. The facility was still in compliance with the emission limits for the MACT because it is based on a 12-month rolling average.

For Gel Coat Low VOC Gel Coat from Interplastic Corp. is used. This contains 29% styrene. The record keeping sheet was adjusted from the previous gel coat which contained 33% styrene. The emission factor for uncontrolled changed from 0.1470 to 0.1335. However, the controlled emission factor for controlled at 30% styrene should be 0.0047. This emission factor was used including for March 2015 and before when the styrene content was 33%. The emission factor should have been 0.0051 for controlled and a styrene content of 33%. The record keeping sheet was corrected after discussing it with Ms. Mercer. The gel coat does not contain MMA. White gel coat is the most used color. Other colors that may be used include linen, almond, biscuit, and natural bone. Except for natural bone the other colors have a higher styrene content. These are added into the main record keeping.

According to the MSDS the resin contains 48% styrene. However, in 2015 Aquatic has used resin with 47% styrene and currently it is at 44%. The correct emission factors are being used. The % styrene for resin varies depending on supplier.

On the record keeping sheets two cleanup solvents are used. This is acetone and Liquid Green. According to the ROP they are required to record usage based on a 12-month rolling time period which is being done. Liquid Green is used to clean resin rollers and is used in the permanent total enclosure (PTE). Acetone is in a covered container outside and is used to clean spray guns. According to the MSDS Liquid Green contains 5.57% VOC.

Other materials that have the usage amounts recorded include catalyst, green tooling gel, acetone reclaimed, mold wax, fire retardant paint (no VOC's), and isocyanate. Isocyanate is in foam that is applied to some units. Resin and gelcoat used to repair products is taken from that already being used so this appears in the main record keeping. The green tooling gel VOC is added into MAERS.

Mold wax is used in the PTE and is used to coat the molds prior to gel coat application. This should be a Rule 287 group. The record keeping is being changed from pounds to gallons.

Walk Through

There are 2 bulk tanks for resin. A third bulk tank is not used. The two bulk tanks are in a room which is not part of the PTE. Resin usage is recorded daily from the bulk tanks. From the bulk tanks the resin goes to two mixing tanks. These are covered and the hopper is also covered. The hopper is used to add filler which is a powder containing featherlite and gypsum. There is an outside dust collector that is used to contain dust from the mixers. The dust collector may be exempt under Rule 285(f). It appears

that the dust collector emits back inside the building. From the mixers the resin goes to two holding tanks. There are three pumps for each of three lamination guns. Catalyst is added at the gun. Catalyst is pumped from covered 55 gallon drums that contain a 5 gallon container of catalyst.

The RTO is outside and has two concentrators. In the control room the RTO temp. was reading 1668 degrees F (lower limit is 1600). The rotational speed for concentrator 1 was 3.91 rpm (range 3.5-4.5) and concentrator 2 was 4.25 rpm (range 3.5-4.5). The desorption temp. for concentrator 1 was 359 degrees F and for concentrator 2 was 358 degrees F (349 degrees the lower limit). The pressure drop across the concentrator adsorbent was 2.1 for concentrator 1 and 2.05 for concentrator 2. The range in the ROP is 2.2-3.2, although based on the last stack test 2.1 was recorded. It appears that the range could be changed to 2.1-3.2. The pressure drop across the heat exchanger was 1.6 for concentrator 1 and 1.5 for concentrator 2 (range -1.00 to 5.00). There is a bypass valve that is visually inspected several times per day. The position of the valve can be seen whether it is in bypass mode or not. There is also a strobe light that goes on when the RTO is in the bypass mode. Time on bypass is recorded and taken into account for calculations.

There is a wood working area with some internal dust collectors. No sawdust was seen in this area. There is a repair area. Any gelcoat or resin used here is recorded in the main recordkeeping.

The lamination and gel coat area is in the PTE. There are four access areas for entry to this area. One of the areas has plastic strips hanging hanging down and is used to haul the finished product through. The other three doors should be closed most of the time. The door near the office was opened when we first arrived. The air flow is checked with an anemometer.

Molds are on hangers and are wiped with mold wax. The wax is in one gallon cans. Gel coat is sprayed onto the mold. The gel coat pump room is in the PTE. Here 55 gallon containers of gel coat are fitted with pumps. There is a lid made of wood that is cut to accommodate the pump over the top of the drum. There are some gaps in the lids. At the time of the inspection a 5 gallon drum of linen color gel coat was also being used. Gel coat is sprayed with atomized guns. The parts then go through a heated area. The first layer of resin and fiberglass is applied using chop guns. The resin is then rolled out. Before the resin is dry cardboard or wood reinforcements are added. A second lamination coat is applied (may be called corner lamination). This is rolled out. A third coat of lamination is then added (may be called 2nd lamination). There is a container of Liquid Green that is used to clean rollers. When dry the finished product is removed from the mold with the help of air pressure. Filters are changed once a shift as needed. There is another internal bank of filters changed every two - three weeks. There is a final set of filters at the RTO concentrators.

The finished product is then wheeled into a grinding booth where rough edges are smoothed and excess material is sawed. This booth has dust collection and is internally vented. Some foam may be added here. This is tracked under isocyanate on the record keeping sheets.

Bubble tests were performed on 4/23/15 and 10/13/15. This appears to satisfy 40 CFR Part 63 Subpart SS, which refers to 40 CFR Part 60 Appendix A, Method 21. The bubble test is a supplemental method in this regulation. The wheel observation was performed on 4/23/15. This appears to satisfy internal observation of the concentrator's adsorbent materials.

NAME Denin Dunlop DATE 1/25/16 SUPERVISOR MD 2/25/2016