

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

N687432543

FACILITY: Quantum Composites, Inc.- A. Schulman		SRN / ID: N6874
LOCATION: 1310 South Valley Center Drive, BAY CITY		DISTRICT: Saginaw Bay
CITY: BAY CITY		COUNTY: BAY
CONTACT: Duane Gohr , Shift Supervisor		ACTIVITY DATE: 12/11/2015
STAFF: Gina McCann	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MAJOR
SUBJECT: Full Compliance Evaluation for MI-ROP-N6874-2011		
RESOLVED COMPLAINTS:		

I (glm) conducted an announced inspection of Quantum Composites, Inc.-Citadel Plastics in Bay City, MI. Mr. Duane Gohr, Director of Manufacturing, and Mr. Tim Langschwager, Research and Development Manager, accompanied me during my site visit. The facility was issued MI-ROP-N6874-2011 to limit VOC and HAP emissions. The facility is subject to 40 CFR Part 63 Subpart WWWW, Reinforced Plastic Composites Production.

The AQD received an administratively complete ROP application on September 9, 2015. A working draft was sent on November 23, 2015. The working draft had small changes including the addition of the boiler MACT (40 CFR Part 63 Subpart DDDDD) for three boilers and the RICE MACT (40 CFR Part 63 Subpart ZZZZ) for one emergency generator. This compliance evaluation does not include compliance checks for these standards.

The facility is a sheet molding compound (SMC) and bulk molding compound (BMC) manufacturing facility. Resinous paste, fillers, and product enhancers are mixed in batches in one of seven mixers that range in size from five gallons to 300 gallons. The emissions from the mixers are controlled by a VTI dust collector which then vents to the energy recovery unit. The paste mixture is transferred to one of the three molding compound machines. Fiberglass or carbon fiber may be added to the paste mixture for reinforcement and the paste mixture is spread between layers of carrier film. Heat and chilling may be used to control reaction rates. The product is packaged and shipped or placed in a cooler. Production equipment is cleaned with solvents. The used solvents are temporarily stored on site until disposed. There are also quality assurance and product development testing laboratories, which are exempt from obtaining a PTI.

All in plant air is vented to the VTI dust collector which is then vented to the 2.8 MMBTU energy recovery unit.

I returned on December 11, 2015 to complete the inspection. The facility was not in operation on during the initial inspection on November 24, 2015. The purpose of this inspection was to determine compliance with work practice standards required in 40 CFR Part 63 Subpart WWWW and to view the pressure drop on the VTI dust collector while the facility was in operation.

**FGSMCBMC (EUSMCI, EUSMCII, EUSMCIII, EUMIXERS, EUBMCMIXER, EUSOLVENT, EUPRESS):Noncompliance**

All three sheet molding compound processes are similar.

Short term solvents usage is determined by a measuring stick correlated to the containers volume. The liquid height is recorded by floor workers, converted to volume used, and recorded. A copy of the solvent use record for January 2014 is attached. Annual solvent usage is based on amount of solvent used minus amount of solvent sent for disposal. We reviewed electronic records for solvent usage, disposal & emission calculations.

The mixed formulations are specific to each customer's needs and must be accurate to obtain desired characteristics. The production material use values for air pollution records assume 100% of the material purchased is used in production. The facility tracks styrene percent by product group and emission unit. I reviewed 12-month rolling records for July 2014, October 2014, July 2015, and October 2015. The emission unit EUMIXERS for the product group Polyester, with the formulation ID 569, has a styrene monomer content of 69.67%. The permit limits the styrene monomer content to 30%.


Mr. Gohr, Mr. Langschwager and I discussed the reason for the styrene monomer content exceedance for EUMIXERS. The formulation or batch number is associated with an additive that they normally receive premixed. There were a handful of instances in 2014 and 2015 when they received the materials in for the additive, but had to mix on site. At the time of the inspection the facility had flushed out the problem and had

implemented a solution. However, a violation notice will be sent as a means of documenting the incident with the anticipation that resolution will be committed to in writing. The facility now recognizes that it can only accept the premixed additive and cannot mix onsite.

Mr. Gohr and I viewed the magnehelic for the VTI and the differential pressure was 1.5 "W.C.

FGMACT: Compliance

At the time of the inspection, work practice standards required by the MACT were being followed.

NAME 

DATE 12/16/15

SUPERVISOR C. Hare