

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

N257528226

FACILITY: MASSEE PRODUCTS LTD		SRN / ID: N2575
LOCATION: 2612 N 5TH ST, NILES		DISTRICT: Kalamazoo
CITY: NILES		COUNTY: BERRIEN
CONTACT: Jesse Townsend , President		ACTIVITY DATE: 12/17/2014
STAFF: Matthew Deskins	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Unannounced Scheduled Inspection		
RESOLVED COMPLAINTS:		

On December 17, 2014 AQD Staff (Matt Deskins) went to conduct an unannounced scheduled inspection of the Masee Products facility located in Niles, Berrien County. The purpose of the inspection was to determine the facilities compliance with both state and federal air pollution regulations as well as the facilities air use permit No. 533-97. This permit has VOC and HAP emission limits that allowed the facility to opt-out of being a major source and the federal Title V air program. Staff departed for the facility after conducting another inspection nearby.

Staff arrived at the facility at approximately 1:05 p.m. but wasn't sure it was open because staff could only see a truck and trailer parked next to the facility. Before checking to see if anyone was in the building, staff looked for signs of visible emissions and if any odors could be detected. Neither were noted and it didn't appear anything was in operation. Staff then proceeded to the front door of the building and it was open. Staff proceeded inside and came across Jesse Townsend (President) who was running a sewing machine. Staff introduced them self to Jesse and stated the purpose of the visit. Jesse then asked what staff would like to see. Staff stated that they would like to view the company's operations and review records required to be kept by the permit. Jesse stated that their operations are currently idle for the most part due to business being so slow, which he said is pretty common for them for the months of November and December. He went on to state that right now it's only himself doing any production work as needed although his dad comes in once in a while to help out. Jesse also mentioned that his wife does the office work and that he has another employee come in once in a while to help sew. Staff then asked if any of their products they make had changed and Jesse said it hadn't. He said that foam products are still all they manufacture. He said they are a job shop and will do just about any foam product but Head Mobilizers for the medical industry are still the main stay of their business. He thinks that one of their biggest customers (Ferno) took their business to China which is why things have really slowed down for them. Staff asked if they still made any coolers and Jesse said that they haven't in a long time. He said that they might look getting back into them to see if it can get business to pick back up. Staff then took a walk through with Jesse of the buildings at the facility just to see if anything had been added and nothing had been. Since there was no production currently going on and since their manufacturing process is still the same, staff will use the following summary of the facilities operations from one of their previous inspection reports. Jesse also said he would e-mail staff their records because he keeps them on his home computer.

Raw Products: The company purchases foam slit roughly to the size of the products they will be making. They may then have to trim it up and do a little fabrication on the foam depending on the specs of the product. It will then go to the glue operation.

Adhesive Operation: The company uses two types of adhesive, Permagri 599 and a new product called Silaprene which replaced a product called Vinobond. Jesse said that Silaprene was cheaper and lower in VOCs. The Permagri adhesive is a type of contact cement that is brushed on while the Silaprene is rolled on and has to be heat activated with a hair dryer or heat gun. The Silaprene product is used the most of the two. The adhesive operation is mainly for adhering two pieces of foam together during the initial process that will ultimately be used for attaching accessory items to it at a later stage of the process. The foam then goes on to assembly.

Assembly: All that takes place here is the sewing on of accessory items such as Velcro and webbing prior to the paint dipping process. Sometimes these items will be sewn on after the paint dipping process depending on the product.

Paint Dipping: This process is located in another building that is adjacent to the main building. In this process, powder paint and/or liquid gel paint are placed in a 55 gallon barrel. It will then have either

toluene, MEK, acetone, or MIBK added to it as a solvent for mixing. This process requires heat and it is provided by a hot water heater. Copper coils that are attached to the hot water heater are placed in the barrel during the mixing process. Jesse had stated that they use toluene and MEK the most, but will use MIBK at times if they need a better shine to the product. Acetone is used more often in the winter because of its evaporation rate. If used during the summer, it dries too fast and leaves the product looking flawed. After the paint has been mixed, it is transferred to smaller plastic totes located under a conveyor system. The parts are then placed on hooks attached to the conveyor and an employee manually takes the part off, dips it in the paint, and then places it back on the hook to dry. Drying is done by a forced air system. Jesse had stated before that most products have been run through the paint dipping process 3 to 4 times to get the coating they want.

Assembly: After the paint dipping process, the product may need to come back this area for sewing on any additional accessory items.

Silkscreening: The products eventually end up here where a logo or any other required information will be printed on the product. Jesse had stated before that they only use about a gallon of ink per year and the most of the emissions from this process come from the use of MEK and Toluene during clean-up.

Packaging and Shipping: The products are then packaged and shipped to the customer.

NOTE: Jesse e-mailed staff the facilities records the following day (December 18th) and the following lists the Special Conditions of PTI No. 533-97 and staff's comments regarding their compliance status.

13. The VOC emission rate from the processes (Paint Dip Operation, Glue Operation, and Silk Screen Operation and Associated Clean-Up) shall not exceed 24.9 tons per year based on a 12-month rolling time period as determined at the end of each calendar month.

AQD Comment: Appears to be in COMPLIANCE. Staff did not note any instances where the company exceeded this limit. Records reviewed indicate the most recent 12-month rolling total being 7.15 tons.

14. The hazardous air pollutants (HAPs) as defined pursuant to section 112(b) of the Clean Air Act shall not exceed 9.5 tons per year for any individual HAP nor exceed 24.9 tons per year for any combination of HAPs at the facility. The annual limit shall be based upon a 12-month rolling time period as determined at the end of each calendar month.

AQD Comment: Appears to be in COMPLIANCE. Staff did not note any instances where the company exceeded this limit. Records reviewed by staff indicate that Toluene is the highest individual HAP emitted at 3.78 tons and aggregate HAP emissions at 7.15 tons. The aggregate total included MEK which has been delisted as a HAP.

15. The volatile organic compound (VOC) emission rate from the paint dip operation, shall not exceed 67.0 pounds per hour, nor 2.0 tons per month. These limits are based on an average solvent use of 571 gallons per month with an average VOC density of 7.0 pounds per gallon.

AQD Comment: Appears to be in COMPLIANCE. Staff did not note any instances where these limits were exceeded. Records reviewed indicate a pound per hour emission rate typically between 20 to 30 pounds (based on actual hours of paint dip operation) and monthly average total of 0.53 tons.

16. The acetone emission rate from the facility, shall not exceed 6.0 tons per year based on a 12-month rolling time period as determined at the end of each calendar month.

AQD Comment: Appears to be in COMPLIANCE. Staff did not note any instances where the company exceeded this limit. Records reviewed by staff indicate emissions at 0.1 tons.

17. There shall be no visible emissions from the paint dip operation.

AQD Comment: Appears to be in COMPLIANCE. Staff did not observe any VEs but the process wasn't in operation during staff's inspection.

18. Stack Testing Requirements.

AQD Comment: Not applicable unless the AQD requests it which we haven't to date.

19. The exhaust gases from the paint dip operation shall be discharged unobstructed vertically upwards to the ambient air from 2 stacks each with a maximum diameter of 28 inches at an exit point not less than 16 feet above ground level.

AQD Comment: The stacks appear to meet the diameter and height requirements mentioned above.

20. For each of the processes specified in this permit, applicant shall keep a record of the following:

- A. For each material used, record the following on a monthly basis:
 - 1. The identification of each material used.
 - 2. The VOC content in pounds per gallon and/or pounds of each material as applied.
 - 3. The content, in pounds per gallon and/or pounds, of each and all HAPS for all materials used.
 - 4. The amount in gallons and/or pounds of all materials used.
- B. Monthly flush and clean-up solvent usage rate, reclaim rate, and disposal records, if applicable.
- C. Monthly record of purchase orders and invoices for materials.
- D. Hours of operation of the paint dip line.
- E. For all HAPs used at the facility, monthly calculations of the following:
 - 1. Each HAP emission rate in tons per month.
 - 2. Aggregate HAP emission rate in tons per month.
 - 3. 12-month rolling time period emission rate in tons per month.
- F. Monthly calculations of the following for VOCs:
 - 1. VOC emission rate in tons per month by process.
 - 2. 12-month rolling time period emission rate in tons per year by process.

AQD Comment: Appears to be in COMPLIANCE with all the above.

AQD Inspection Summary: The facility appears to be in COMPLIANCE with the special conditions of PTI No. 533-97 at the present time. Staff departed the facility at approximately 2:45 p.m.

NAME Matt DeL...

DATE 1-7-15

SUPERVISOR MB 1/12/2015

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(m.m.d)