

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

F847040205

FACILITY: SANDMOLD SYSTEMS		SRN / ID: F8470
LOCATION: 313 W STATE ROAD, NEWAYGO		DISTRICT: Grand Rapids
CITY: NEWAYGO		COUNTY: NEWAYGO
CONTACT: Andy Johnson, Buyer		ACTIVITY DATE: 06/09/2017
STAFF: Adam Shaffer	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Scheduled, unannounced inspection.		
RESOLVED COMPLAINTS:		

Air Quality Division (AQD) staff Adam Shaffer (AS) arrived at the facility at 10:04 am on June 9, 2017 to complete a scheduled, unannounced inspection. The weather conditions were sunny, 69°F and an east/southeast wind at 5-10 mph.

Facility Description

Sandmold Systems Inc. (SS) is a foundry parts manufacturing company, and they are currently in operation under one General Permit to Install (PTI) No. 146-12. The layout of the facility consisted of offices, storage areas, and one manufacturing area.

Compliance Evaluation

Prior to entering the facility, offsite odor and visible emission observations were completed. No visible emissions or odors were observed coming from the facility. Upon entering the facility, AQD staff AS met with Mr. Andy Johnson, Buyer for Sandmold Systems Inc. (SS). The purpose of the inspection was explained to Mr. Johnson and included a facility walk through and wrap up discussion.

FG-Coating

The coating area consists of one large paint booth located in the manufacturing area. The volatile organic compounds (VOCs) are limited to 2000 lbs/month and 10 tons per year (tpy) for each coating line plus all associated purge and clean-up operations. SS utilizes Material Safety Data Sheets (MSDS) to determine their VOC content for each coating material used, which per PTI No. 146-12, is an acceptable method. The VOC monthly and 12-month rolling totals back to May 2016 were provided at the end of the inspection and reviewed. Also MSDS for five coating materials typically used during on site operations were provided by SS. When cross checking the VOC contents with the supporting MSDS several minor errors were identified. After speaking with representatives of SS, it was determined that they had been initially instructed incorrectly when determining VOC contents. AQD AS informed representatives of SS on the correct methods to determine VOC contents. AQD staff will require that from now on SS update their VOC records using the appropriate methods described and with the most up to date MSDS and/or formulations data sheets available.

At the time of the inspection, open containers were observed around the one paint booth. AQD staff AS recommended to Mr. Johnson on limiting open containers to prevent fugitive emissions. All waste coatings and purge/clean-up solvents are collected and stored in a chemical storage building on site. According to Mr. Johnson, every six months Crystal Clean collects all used materials and removes them off site. High volume low pressure (HVLP) spray applicators were being used at the time of the inspection; however, no test caps were being kept available for pressure testing. AQD staff will require from now on for SS to have available on site test caps for pressure testing. SS utilizes dry filters for their one paint booth. The filters observed appeared to be in good condition. Pressure gauge panels were observed for the two discharge system to the two associated stacks. After speaking with SS staff it was identified that filters are changed when the pressure gauge reads 0.15 psia, which is usually every two weeks. At the time of the inspection the filters had just been replaced and the pressure gauges were at 0.0 psia. Additionally, during operation of the paint booth SS utilizes dry curtains to enclose and help contain paint emissions. SS has not installed a thermal or catalytic oxidizer on site to help meet the general conditions of their permit.

SS provided purchase orders and invoices for coatings, reducers and purge/clean-up solvents from May 2016 through May 2017. After reviewing the provided records they were deemed acceptable. SS is adequately keeping track of their usage rates and VOC monthly and 12-month rolling emissions. No reclaim of coating materials is completed by SS. The rooftop was not accessed at the time of the inspection; however, the two

stacks for the paint booth were observed throughout the inspection from ground level and appeared to be accurate to conditions required in PTI No. 146-12. Mr. Johnson stated that to his knowledge no changes have occurred on site since the last inspection in 2013.

FG-Source

Since no additional equipment was observed on site during the inspection with potential VOC emissions, the VOC monthly and 12-month rolling total VOC emissions are the same as FG-Coating.

Additional Observations

- SS has a separate building for their chemical storage area. Large amounts of paints and other chemicals were observed. Several pieces of mechanical equipment including a mixing machine were observed that are either not in use or rented to be used offsite by customers.
- During the inspection several pieces of metal machining/fabrication equipment including a shear machine and band saws were observed and appeared to be exempt per Rule 285(2)(l)(vi)(B).
- Welding stations were observed in the manufacturing area which appear to be exempt per Rule 285(2)(i).
- SS does not have any emergency generators onsite.
- An esab burn table which is a plasma metal cutting machine was observed in the manufacturing area and appears to be exempt per Rule 285(2)(l)(vi)(B).
- A python beam coping machine was observed in the manufacturing area which is used to punch holes in metal parts. The operations section of the machine is in an enclosed area that is attached to a 2,500 cfm capture system. This unit appears to be exempt per Rule 285(2)(l)(vi)(B).
- One 12,000 cfm dust collector was observed in the manufacturing area that is used by a CNDR. The CNDR was stated by SS staff to be used once every couple years. The dust collector and CNDR appear to be exempt per Rule 285(2)(l)(vi)(C).

Conclusion

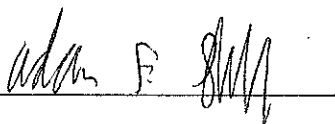
A final discussion was completed with AQD staff and Mr. Johnson. Based on the review of the records provided and the facility walk through, SS is in compliance with PTI No. 146-12, and all other applicable air pollution rules and regulations.

Recommendations

The following are items identified during the inspection and reviewing records that, though are not violations, will need to be completed and will be verified during the next inspection.

- SS will use the correct methods presented by AQD staff to determine VOC contents. SS will also use the most up to date MSDS and/or formulations data sheets available when calculating VOC monthly and 12-month rolling emissions.
- Test caps for HVLP spray applicators will be available on site for pressure testing.

NAME



DATE

07/07/17

SUPERVISOR

