

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

B734945593

FACILITY: Roberts Sinto Corp.		SRN / ID: B7349
LOCATION: 150 Orchard Street, GRAND LEDGE		DISTRICT: Lansing
CITY: GRAND LEDGE		COUNTY: EATON
CONTACT: Ed Warren , Quality Manager		ACTIVITY DATE: 08/14/2018
STAFF: Michelle Luplow	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Scheduled, unannounced compliance inspection to determine compliance with PTI 60-18.		
RESOLVED COMPLAINTS:		

Inspected by: Michelle Luplow (author) and Amie Hartman (AQD MAERS Coordinator)

Personnel present: Ed Warren, Quality Manager (ed.warren@robertssinto.com)

Other pertinent personnel: Rick Lucas, Plant Manager (rick.lucas@robertssinto.com)

Purpose:

Perform an unannounced, scheduled compliance inspection to determine compliance with Roberts Sinto's newly issued permit, PTI 60-18, for coating operations. The first inspection at this facility was conducted in June 2017 in response to odor complaints. At that time it was determined that Roberts Sinto was in non-compliance with Rules 287(2)(c) and Rule 290, and therefore applied for a PTI to resolve the violation. The permit was issued August 2, 2018.

Facility Background

Roberts Sinto manufactures foundry equipment, in addition to building the material handling systems (conveyors) that carry parts for Chrysler, Ford, and GM. Production usually increases prior to the July and Christmas shutdowns at the motor companies, as they supply the conveyors during these shutdowns.

The building that Roberts Sinto's manufacturing operations are housed in was built in 1968. D. Feldpausch, during the June 2017 inspection, explained that Roberts Sinto started out as a small engineering firm at this location that has progressed into the manufacturing industry that it is today. He said that the official Roberts Sinto corporation was established in the early 1990's. Their corporate office, located at 3001 W. Main St in Lansing, still houses the engineering department of the company.

Their facility encompasses 8 buildings total, 2 of which are rented. All buildings have Orchard Street addresses. The main manufacturing building houses the permitted paint area, the remaining buildings are used for warehousing, storage, and inventory, except for what Dan Feldpausch referred to as the "Red Building," which is rented and used to house enclosed mixing vessels.

The facility is broken up into several areas, based on manufacturing type:

Fabrication Area (Northwest side of Building)

The fabrication area is where sawing, drilling, welding, and plasma torch cutting is conducted. This also includes aerosol spray can painting. There are a few wall fans located near the ceiling that are used to vent welding exhaust and to disperse in-plant heat during the summer months. Sawing, drilling, and plasma torch cutting are exempt under Rule 336.1285(2)(l)(vi)(B) because the emissions are released only into the general in-plant environment.

The welding operations are exempt under Rule 336.1285(2)(i) for brazing, soldering, welding, or plasma coating equipment.

Aerosol can spray painting is exempt under Rule 336.1287(2)(b) (surface coating processes that use only hand-held aerosol spray cans).

Assembly Area

This area covers the south to southeast side of the main facility. Within this area are CNC machines (which encompass lathes, milling and grinding). These are exempt per Rule 285(2)(l)(vi)(B), as emissions are only vented to the general in-plant environment. Aerosol spray can touch-ups, and paint-by-brush touch-ups are also in this area and exempt per Rule 287(2)(b).

A parts washer, approximately 1.5'x2.5' (3.75 ft²), is also in this area. During the previous inspection, the lid was open and there were no operating instructions for the unit. I informed D. Feldpausch at the time that parts washer lids are required to be closed and operating instructions are required to be posted. He closed the lid, once informed. I sent Rick Lucas the MDEQ orange parts washers operating instruction stickers. During this inspection, the lid on the unit was closed and the

MDEQ operating instructions were posted. This unit meets exemption Rule 281(2)(h) because the air/vapor interface is less than 10 ft².

There are also 3 shot blasters located in this area, but only one is vented to the outside ambient air. These pieces of equipment are not used for production, but are only used as part of Roberts Sinto's test center. The cartridge dust collector system is located inside the building to treat exhaust air before it exits the building. All shot blasters are exempt from a PTL per Rule 285(2)(l)(vi)(A).

Maintenance Building

The maintenance building, located across Orchard Street from the main facility, has welding, drilling and aerosol can spray painting for repairs and maintenance. These processes are exempt from a permit to install under Rules 336.1285(2)(i), 336.1285(2)(l)(vi)(B), and 336.1287(2)(b), respectively.

"Red Building" 143 Orchard St

This rented building is used to house a binder mixing process. Roberts Sinto mixes an "A" component and a "B" component which are shipped individually to customers to be mixed together for mold injection processes. Each component is mixed in a closed-system mixing vessel. The SDS for each component indicate that they are nonvolatile, noncarcinogenic liquids. E. Warren said they are mixed in approximately 264-gallon capacity vessels. Exemption Rule 336.1284(2)(i) can be applied to this process as the capacity of the mixing vessels is less than 40,000 gallons each and are noncarcinogenic liquids with a true vapor pressure less than 1.5 psia.

The most recent odor complaint was received on 5/23/18.

Inspection

This was an unannounced, scheduled compliance inspection. At approximately 9:20 a.m. on August 14, 2018, Amie Hartman and I arrived at Roberts Sinto, through their visitor entrance located on Morley Street, and met with Ed Warren, Quality Manager. During the previous inspection, I had provided him with a January 2017 Permit to Install Exemptions Handbook.

PTI 60-18: EUCOATING

Coating operations take place within a ~ 42' x 26.5' area in the southwest corner of the building, and is located adjacent to the fabrication area. It is comprised of 2 walls (outer walls) and a tarp that stops paint overspray from dispersing to adjacent areas. There is a total of 5 paint area ventilation fans on the west wall of the paint area: 3 smaller fans which have fabric filters installed upstream from the fan, and 2 larger fans where the fabric filters are installed on the outside of the building, downstream of the fan. The paint fumes generated in this area are therefore vented out the west wall. EUCOATING was not being operated during the inspection; however, while inspecting the installation of the exhaust fan filters, I detected faint/level 1 odors below the vents.

There are 6 portable hand spray guns used to coat metal parts, and each gun is only used one at a time.

E. Warren said that xylene is used to clean the paint gun lines. Xylene was also used as a thinner in the coatings (1/2 gal acetone to 5 gal paint), but that has since been replaced by acetone, a replacement which was reviewed during the permitting process, and which would have no effect on VOC content because acetone is not considered a VOC. He said the xylene is still present in the coating formulations. Acetone is also used to hand-clean parts.

Emission Limits & Monitoring/Recordkeeping

VOCs are limited to 5.0 tpy (on a 12-month rolling basis) and 2,000 lb/calendar month. Roberts Sinto is required to maintain a current listing from the manufacturer of the chemical composition of each material, including the weight percent of each component (which may consist of manufacturer's formulation data or SDSs). Records of gallons (with water) of each material used, VOC content of each material as applied, and VOC mass emissions on monthly and 12-month rolling bases are also required to be kept.

E. Warren provided me with January 2017 – July 2018 required records, including the Air Quality Data Sheets (records attached). These records include xylene, which is a component of most of the coatings they use. Throughout this period, January 2018 had the highest VOC's emitted at 1464 lbs VOC. The highest 12-month rolling VOC emissions during this same period was July 2018 at 4.52 tons. Roberts Sinto is at 70 – 90% of its VOC emission limits, but is still in compliance with those limits at this time. E. Warren said they are planning to outsource most of their painting operations to other companies soon, and they expect only to have 2.5 tons per 12-month rolling period once this occurs.

The TACs ethylbenzene, diethylene glycol monobutyl ether, cumene, and methyl isobutyl ketone (MIBK) each have their own limits. Records of gallons with water of each material containing these TACs, the TAC content with water of each TAC, and the monthly and 12-month rolling mass emissions for each are required. E. Warren provided me with these records.

Ethylbenzene (CAS 100-41-4) is limited to 1400.0 lb/year on a 12-month rolling time period (as determined at the end of each calendar month). An entire 12-month rolling period has not taken place. Currently, for the months from January 2018 – July 2018, the total ethylbenzene emissions are 36.8 lbs.

Diethylene glycol monobutyl ether (CAS # 112-34-5) is limited to 456.0 lb/year on a 12-month rolling time period (as determined at the end of each calendar month). I have reviewed the AQDS for all coatings that Roberts Sinto uses and none of them appear to contain this compound. Roberts Sinto records also indicate that they have no emissions of diethylene glycol monobutyl ether at this time.

Cumene (CAS 98-82-8) is limited to 221.0 lb/year on a 12-month rolling time period (as determined at the end of each calendar month). An entire 12-month rolling period has not taken place. Currently, for the months from January 2018 – July 2018, the total cumene emissions are 4.4 lbs.

MIBK (CAS 108-10-1) is limited to 5,780 lb/year on a 12-month rolling time period (as determined at the end of each calendar month). An entire 12-month rolling period has not taken place. Currently, for the months from January 2018 – July 2018, the total MIBK emissions are 58 lbs.

MIBK also has a daily limit of 15.6 lbs and records of gallons of each coating containing MIBK, the MIBK content, and the mass emission calculations per calendar day are required, but only until Roberts Sinto notifies the AQD that they no longer use MIBK-containing coatings (per SC VII.1 and SC IX.1). At the time of notification, Roberts Sinto will no longer be able to use primers containing MIBK. Currently, there is only 1 coating (a Kem-flash primer) that contains MIBK. Upon review of Roberts Sinto's daily usage records from January 2018 – July 2018, the highest daily MIBK emissions were 14.5 lbs on February 27, 2018. Roberts Sinto is operating at a maximum 93% of its permitted limits.

E. Warren said that Roberts Sinto is currently using Sherwin Williams as their paint supplier, but when Roberts Sinto switches over to Benjamin Moore as the coatings supplier there will no longer be any MIBK-containing primers. He expects they will be making the change-over in approximately 1 month.

Material Limits, Process/Operational Restrictions & Monitoring/Recordkeeping

Roberts Sinto is limited to 12 gallons of coatings per day, allowed to operate EUACOATING no more than 8 hours per calendar day, and is required to track daily records of both total coatings used and total operating hours. E. Warren provided these records to me for January 2018 – July 2018 (see attached).

Records indicate that prior to May 2018 gallon usage consistently exceeded the 12-gallon limit; however, it is important to note that the application for EUACOATING was submitted 2/22/2018, and only after ensuing discussions with Dave Thompson, the Permit Engineer for this project, did Roberts Sinto begin to limit their gallon usage to less than 12 gallons per day. During the period from May 2018 to July 2018, the highest coating usage was 10.5 gallons on May 3rd.

Roberts Sinto began tracking EUACOATING operating hours on June 18, 2018. Total operating hours of EUACOATING never exceeded 8 hours per day from June 18, 2018 through August 10, 2018. The maximum hours operated was 6.75 hours on August 3, 2018.

Process/Operational Restrictions

All waste materials are required to be captured and stored in closed containers and disposed of in an acceptable manner, in compliance with all applicable state rules and federal regulations. Additionally, all virgin/unused VOC and/or HAP-containing materials are required to be handled in a manner to minimize the generation of fugitive emissions, and the containers of these materials are required to be covered at all times when not in use. Spent filters are also required to be disposed of in a manner which minimizes the introduction of air contaminants to the outer air.

E. Warren took A. Hartman and I to a shed located outside, west of the main manufacturing building, which houses all waste and virgin materials. There is only one waste container present within the shed and the lid was closed. All virgin materials were also closed. I detected no solvent odors within the shed, indicative that all lids are sealed tightly, preventing the release of VOC/HAP.

Spent filters are allowed to dry before being transferred to a dumpster located within the building. Once the container is full they are shipped out as non-hazardous waste. It is my professional judgment that this practice effectively minimizes the introduction of paint particulate from the fabric filters to the outer air.

The floor of the EUACOATING area was covered in particulate from painting operations. E. Warren said the particulate on the floor is swept up and allowed to dry in a bucket before shipping it out as nonhazardous waste. From an air emissions standpoint this may not be a problem, as the particulate is contained within the building, but I will inform Ed that daily housekeeping practices be kept to ensure that particulate is being captured and stored

Design/Equipment Parameters

EUACOATING cannot be operated unless all exhaust filters are installed, maintained and operated in a satisfactory manner. E. Warren explained that they have a maintenance schedule in place to determine when the exhaust filters should be replaced; it is based on filter thickness and a general cloudiness in the plant air. They change the 3 small bottom-row filters every morning or every other morning. The 2 larger filters (top row) are generally replaced once per month, but it is largely determined by production for that month.

We observed the filters on the inside and the outside of the building for the 5 exhaust vents. All filters appeared to be installed properly.

There are no Testing/Sampling requirements at this time

Compliance Statement: The Roberts Sinto Corporation is currently in compliance with PTI 60-18.

NAME M. J. Sinto DATE 8/29/18 SUPERVISOR B. M.