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

N568743069

FACILITY: Seaver Finishing		**SRN / ID:** N5687
LOCATION: 16900 Hayes St, GRAND HAVEN		**DISTRICT:** Grand Rapids
CITY: GRAND HAVEN		**COUNTY:** OTTAWA
CONTACT: Andy Bereza , Operations Manager		**ACTIVITY DATE:** 01/05/2018
STAFF: Tyler Salamasick	**COMPLIANCE STATUS:** Non Compliance	**SOURCE CLASS:** MINOR
SUBJECT: FY 2018 inspection of minor source		
RESOLVED COMPLAINTS:		

Background
Seaver Finishing E-Coat Division (Seaver) SRN: N5687 is a coating facility that specializes in electrodeposition coating of various automotive, furniture and exercise components. The production facility is located at 16900 Hayes Street, Grand Haven, Michigan. Seaver is located in a primarily industrial area with the nearest residential structure approximately 200 feet south east of the facility. The facility was inspected on 1/5/2017 by Tyler Salamasick, Environmental Quality Analyst of the Michigan Department of Environmental Quality, Air Quality Division. The intent of the inspection was to determine the facility's compliance with the Federal Clean Air Act Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act of 1994, PA 451, as amended, Michigan's Air Pollution Control Rules and permits No.166-10 and No.397-95. PTI 166-10 covers three natural gas burnoff ovens. Permit 397-95 covers one electrodeposition metal coating line with an associated curing oven. The primary permit emission limits are for volatile organic compounds (VOCs). The facility provided documentation that shows the coating is free of hazardous air pollutants (HAPs).

Inspection
Site arrival was at 11:10 am on 1/5/2018. Upon arrival I met with Plant Manager, Andy Bereza. I presented my State of Michigan identification card, informed the facility representative of the intent of my inspection and was permitted onto the site. Andy informed me of the facility's processes and showed me the facility. The facility uses electrodeposition (ecoat) to coat various parts for various industries. The facility uses burn off ovens to clean the ecoat racks. I asked Andy to show me the facility's processes from start to finish.

Process
Seaver's electrodeposition process is permitted by PTI No. 397-95. The process begins when Seaver receives relatively clean unpainted parts at the shipping and receiving area. The parts vary in size from roughly as small as a coin, to as large as a windshield mounting frame. Some of the parts have minor amounts of grease/oil/rust inhibitor residuals on the parts. The first component of the electrodeposition (ecoat) process is sorting and placing of parts on coating racks. Once the parts are properly staged they are added to the line.The racks then convey the parts to the wash area. The parts are washed with warm water, multiple caustic rinses and clean water rinses. Once cleaned, a phosphate conditioner is added, and the parts are dipped into the ecoat tank. The paint is then baked on as the parts pass through the ecoat oven.

The parts are unloaded from the racks and packaged prior to being shipped back to the customer. Seaver reuses the racks that were used to carry the parts. As the racks are used, small amounts coating builds up on the surface. Seaver utilizes four burn off ovens to clean the racks. PTI No. 166-10 only permits three of the four burn off ovens. The emission units covered by PTI No. 166-10 include two PRC-640 ovens and a PRC-260 oven. I informed Andy that the fourth oven was not permitted and that this was likely a violation of Rule 201. I informed Andy that I would look at the permit application for

PTI No. 166-10 to determine if the fourth oven was originally intended to be permitted. Upon further review it was determined that the oven was not included in the permit application and the process was unpermitted. This is a violation of Rule 201.

Andy showed me how they track the usage and temperatures of the ovens. Even though the fourth oven was not permitted it appeared that they were operating all of the ovens in accordance with PTI No. 166-10. Each of the ovens have a primary burn off which is used to thermally decompose the coating and release it from the racks. The ovens also each have a secondary burn off chamber that controls emissions from the primary burn off. While at the ovens Andy showed me one of the burn off oven charts. Andy also showed me the collection of oven temperature records that dated back at least five years. I requested that Andy provide me with a selection of dates for my review at the office.

PTI No. 397-95
The special conditions (SC) of PTI No. 397 restricts the emission of VOCs from the electrodeposition line and associated preparation tanks. SC.13 limits the VOC emissions from the process to a maximum of 14.4 pounds per hour and 14.4 tons per year. Andy showed me the computer they used to calculate and maintain the records. He later provided me with a copy of the records. The records indicate that the facility emits between 2 and 3 lbs of VOC per hour. The highest reported hourly emissions in the past 2 years was 8.67 pounds per hour on 10/10/2017. This is below the 14.4 lbs ofVOC limit per hour. The records also indicated the total monthly pounds of VOCs emitted. The permit requires a 12 month rolling total at the end of each month. Seaver will need to correct their records to better reflect the requirements of the permit. The information required to calculate the 12 month rolling total appears to be available within the current records. Over the past 2 years the facility emitted between 879.07 lbs of VOC per month (0.44 tons) and 1500 lbs of VOC per month (0.75 tons). Base upon the worst-case calculation of 0.75 tons per month the average 12 month rolling would be 9 tons which is below the 14.4 ton limit.

Special Condition 14 (SC.14) limits the VOC emission rate of the material to 0.27 pounds of VOC per gallon of coating (minus water) as applied. The facility reports using 0.48 lbs of VOC per gallon (minus water) as applied. This exceeds the permit limit and is a violation of SC.14.

Seaver is required by the permit to maintain records of the VOC content of the paint, resin and solvent as applied, the usage rate of each as well as the total hours operated. The facility's records appeared to meet this requirement. The permit also requires that the facility records an average hourly VOC emission rate, a monthly emission rate and a 12 month rolling emission rate. The facility provided records that show average hourly emissions and a monthly emission rate. As discussed above, the facility will need to modify their records to include a 12 month rolling total.

The permit does not limit the emissions of hazardous air pollutants (HAPs). Andy provided with the material content records. The materials do not appear to contain HAPs and would appear to not be a significant source of HAP emissions.

PTI No. 166-10
Seaver's PTI No. 166-10 pertains to three burn off ovens. The ovens are used in conjunction with the ecoat line as a means of cleaning the ecoat racks. As discussed above, Seaver has a total of four burn off ovens installed. The fourth burn off oven is not permitted under PTI No. 166-10 and is in violation of Rule 201. The three emission units are covered under the flexible group FGBURNOFF in the permit. Each oven is equipped with a secondary afterburner for a pollution control devise.

The permit does not allow any viable emissions from FGBURNOFF. I had made stack observations prior to entering the facility and did not observe opacity from the ovens.

PTI No. 166-10 has material limits that restrict what materials can be processed in FGBURNOFF. The permit only allows the permittee to process cured paints, oil or grease on metal parts, racks and or hangers. The facility was only using the oven to bake off cured paints that had built up on the racks/hangers. The material limits section of the permit also restricts the facility to only use natural gas as a fuel for FGBURNOFF. The equipment appeared to only be able to operate with natural gas. The facility is in compliance with the material limits of PTI No. 166-10.

The process and operational restrictions set by the permit restricts Seaver from using FGBURNOFF for the thermal destruction or removal of rubber, plastics, uncured paints, or any other materials containing sulfur or halogens (chlorine, fluorine, bromine, etc.) such as plastisol, polyvinyl chloride (PVC), or Teflon, with the exception of cured epoxy electro-coating on metal parts, racks and/or hangers generated at the facility with a chlorine content not exceeding 600 ppmw1. Andy informed me that they only use the ovens to burn off the racks. He informed me that they do not used chlorinated coatings and also provided me with the coating's safety data sheet SDS which did not indicate that the material contained any chlorinated compounds.

PTI No. 166-10 requires that FGBURNOFF ovens meet specific design parameters. The ovens are not to be operated unless the secondary afterburner maintains a minimum temperature of 1400°F. I observed the facility's temperature charts, which indicated that the equipment was operating just under 1600°F. The ovens had minor fluctuations, but the records did not indicate that the equipment's secondary burners dropped below 1400°F. Seaver appears to be in compliance with the design and operational restrictions of the permit. Seaver also appears to be operating the fourth burn off oven in congruence with PTI No. 166-10.

The permit requires that the ovens are equipped with an automatic temperature control system for the primary chamber and secondary chamber as well as an interlock system that shuts down the primary burner if the secondary burner is not operating properly. Andy indicated that the equipment is computer controlled and offered to demonstrate the interlock. I informed Andy that a demonstration would not be necessary. The controls appeared to meet the condition of the permit.

Seaver is required to maintain records in order to demonstrate compliance with the permit. This includes the monitoring the secondary chamber temperatures. The facility is required to monitor the temperature once every 15 minutes. The facility is complying with this condition by monitoring the temperature continually.

The permittee is required to calibrate the thermocouples associated with the primary chamber and secondary chamber/afterburner for each FGBURNOFF oven at least once per year. Andy informed me that they replaced them a year ago. He also provided me with a maintenance schedule for various processes that included quarterly maintenance of the burn off ovens.

Seaver is required by the permit to keep a record of the date, duration, and description of any malfunction of the control equipment, each thermocouple calibration, any maintenance performed and any testing results for each FGBURNOFF oven. As discussed above, Andy had provided me with a maintenance schedule. The schedule did not indicate that they facility had any malfunctions in 2017.

Conclusion

Seaver Finishing E-Coat Division is in violation of Rule 201 for installing and operation one unpermitted burnoff oven. The facility is also in violation of Special Condition 14 of PTI No. 397-95. A violation notice will be issued seeking a resolution to the violations. Seaver Finishing E-Coat Division appears to be in compliance with all other Air Quality regulations, conditions of PTI 397-05 and conditions of PTI No. 166-10.

NAME _____ DATE 1/19/17 SUPERVISOR _____