

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: On-site Inspection

P132967150

FACILITY: MURRAY PAINTING COMPANY		SRN / ID: P1329
LOCATION: 6078 HACKETT ROAD, FREELAND		DISTRICT: Bay City
CITY: FREELAND		COUNTY: SAGINAW
CONTACT: Andy Bovee , EH&S		ACTIVITY DATE: 04/19/2023
STAFF: Gina McCann	COMPLIANCE STATUS: Compliance	SOURCE CLASS: Synthetic Minor
SUBJECT: Inspection of PTI 19-23 and 163-22.		
RESOLVED COMPLAINTS:		

I (glm) performed an unannounced inspection of Murray Painting (P1329) located at 6078 Hackett Road in Freeland. Mr. Andy Bovee, EH&S Director was my escort during the inspection. At the time of the inspection the facility was in compliance with their permits.

Murray Painting is a family owned business that performs industrial and commercial painting. According to their website, they've worked on projects such as Michigan's Capital building, the University of Michigan, restaurants, and industrial facility such as Hemlock Semi-Conductor, and Dow. AQD was notified of complaints regarding the sandblasting operation not vented to an appropriate system. The company installed a cyclone collector to resolve complaints. Complaint follow-up determined the facility required permits for the paint booth operations. Murray Painting was issued PTI 163-22, with HAPs opt-out limits, and General Coating permit, PTI 19-23 in late 2022 and early 2023.

Murray Painting operates a total of four paint booths. One paint booth in the existing building and three booths in the new building. The new building was built in the winter of 2022. Each coating line plus all associated purge and clean-up operations are restricted to 2,000 pounds per month (lb/month) of VOCs. Murray has put together a spreadsheet to track these emissions. However, they were not tracking per coating line, but as an aggregate of emissions. Mr. Bovee has resolved this by adding in tracking per booth. There were a few months that appeared to be over the 2,000 lb/month VOC limit. However, given there are four (4) booths and the emissions were not being tracked separately, each coating line is likely below the limit. Records are being adjusted moving forward.

Each coating line plus all associated purge and clean-up operations are also limited to 10 ton per year (tpy). Likewise, the facility was not tracking per coating line, but aggregating the emissions. The 12-month rolling total, ending March 2023, for all coating lines was 10.9 tpy. Given there are four (4) coating lines, each line is likely below the emission threshold. Records are being adjusted moving forward. Also, the site is restricted to 30 tpy VOCs based on a 12-month rolling time period as determined at the end of each calendar month. The 12-month rolling total, ending March 2023, for all coating lines was 10.9 tpy.

The general coating permit requires the facility to capture all purge/clean-up solvents and waste coatings from all coating applicators used, store these materials in closed containers, and dispose of them in an acceptable manner in compliance with all applicable state rules and federal regulations. Murray Painting has installed a paint reclaiming system provided by Safety Kleen called the Minimizer III. It removes paint waste, pigments, solids, and other impurities from used thinner and reducers to reduce the waste stream. Murray uses this equipment to extend the life of the xylene they use for thinning and clean-up. The attached picture is from the 2nd paint

building where the equipment is housed. Murray pours the spent xylene in the top of the Minimizer and uses the wand to fill containers with regenerated material. In addition to painting on the coating lines, Murray Painting is painting at different locations, i.e. State Capital building, Hemlock Semiconductor, etc. and will take the xylene with them for clean-up/thinning. The xylene can only be “cleaned” once and then it is wasted.

During permit discussions, Murray shared documentation showing their applicators are comparable technology with equivalent transfer efficiency to the high volume-low pressure (HVLP) spray applicators. Permit section accepted this demonstration and therefore the district will do the same.

Part of the general coating permit is requiring the facility to discharge exhaust gases from FG-COATING unobstructed vertically upwards to the ambient air at exit points not less than one and one half times the building height (from ground level to point of discharge). During the inspection I verified each of the stacks were one and one half times the building height (from ground level to point of discharge). Pictures of the stacks are contained in this report.

PTI 163-22 is a HAPs opt-out permit. Murray Painting uses industrial paints in their applications and xylene as a thinner and clean-up solvent. During permitting discussions, Murray explored the idea of switching to acetone and it was not feasible to continue providing the same product. Therefore, the source has the potential to be a major source of HAPs and required an opt-out permit.

The facility is limited to less than 8.9 tpy each individual HAP and less than 22.4 tpy, based on a 12-month rolling time period as determined at the end of each calendar month. Again, there were some troubles with the spreadsheet. The table below shows emissions for the 12-month rolling time period ending March 2023. Aggregated emissions for this time period was 10.47 tpy

HAP Emissions 12-Month Rolling Time Period Ending March 2023				
Ethylbenzene	Xylenes	Hexone	Toluene	Benzene
2.93	5.80	0.65	1.08	0.01

As the facility adds new paints, they will need to adjust the formulas to ensure the sums are totaling properly. At the time of the inspection the facility was in compliance with their permits.



Image 1(Reclaim System) : Reclaim system installed to recover xylene.

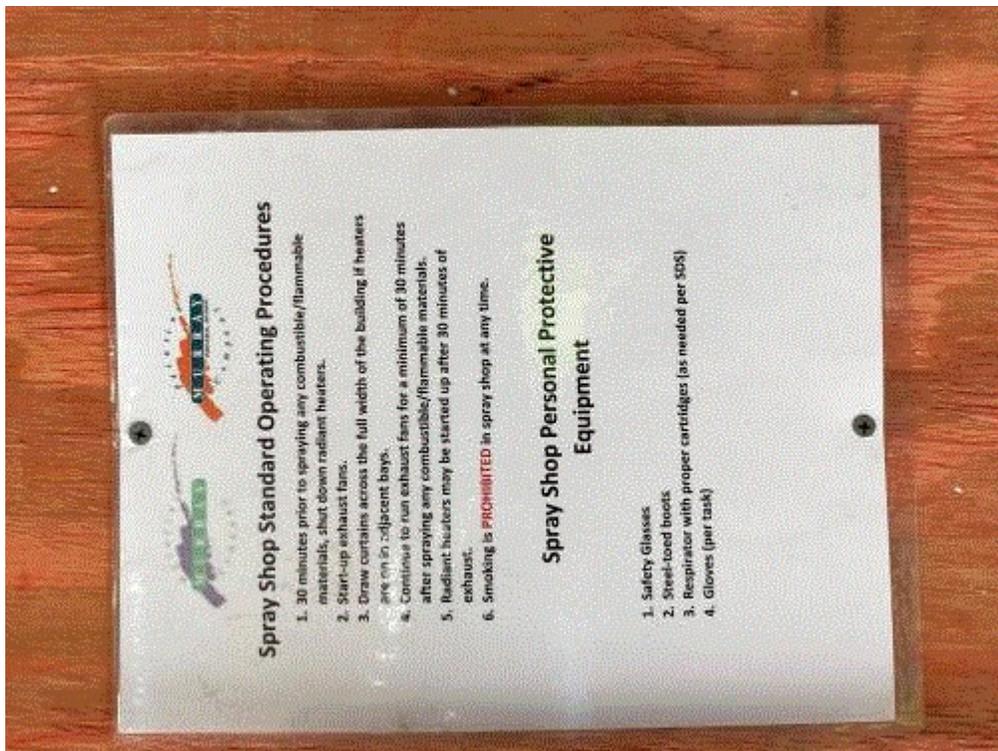


Image 2(Operating Procedures) : Operating procedures are posted on the wall in the paint buildings.

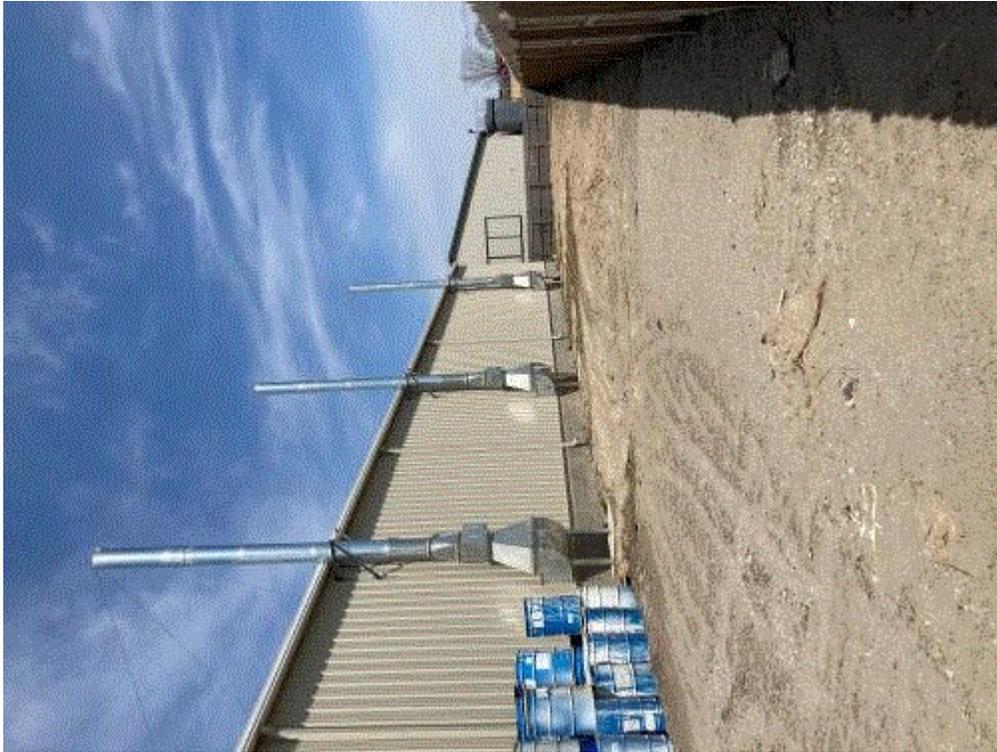


Image 3(Stacks) : Picture shows newly installed stacks that meet the general PTI height requirement of 1.5 times the height of the building.

NAME *Gina J. Farn*

DATE 5/24/2023

SUPERVISOR *Chris Hare*