

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

N266462443

FACILITY: PIONEER CABINETS INC		SRN / ID: N2664
LOCATION: 301 W RISING, DAVISON		DISTRICT: Lansing
CITY: DAVISON		COUNTY: GENESEE
CONTACT: Chad Fackler , Operations Manager		ACTIVITY DATE: 03/17/2022
STAFF: Samantha Davis	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Scheduled inspection for compliance with PTI 1004-90I.		
RESOLVED COMPLAINTS:		

Purpose: Scheduled inspection for compliance with permit No. 1004-90I.

Location: Pioneer Cabinetry is in a slight industrial and residential area. The facility is approximately 105 feet from the nearest surface water (Black Creek), 149 feet from the nearest residence, 230 feet from a neighborhood park, 531 feet from an intermediate school and 1,100 feet from an elementary school. (See map attached).

Facility Background/Regulatory Overview: Pioneer operates on one shift, five days per week. Their main operations consist of wood-working boards into kitchen cabinets, some of which are coated in stain, paint and sealer.

Pioneer Cabinetry is considered an opt out synthetic minor source of air emissions. The facility operates under a Permit to Install No. 1004-90I.

A *synthetic minor* permit limits the facility's potential to emit (PTE) for five of the criteria pollutants: carbon monoxide, nitrogen oxides, sulfur dioxides, volatile organic compounds, and particulate matter to keep it from becoming a major source.

Fee Status: Pioneer Cabinetry submits an annual emissions report to MAERS but is not considered a fee subject source.

Inspection:

Arrived: 10 AM

Departed: 11:30 AM

Weather 64°F, wind SW at 9 MPH

I noted level 2 paint odors directly east of the facility that came and went with the wind. I did not notice any odors at the nearby school or park, or any of the surrounding nearby streets. There were no visible emissions from the facility upon arrival.

I met with Chad Fackler, Operations Manager. We discussed any changes the facility had seen since my last visit as well as some of the equipment I wanted to look at and what is required under the permit. C. Fackler accompanied me on a tour of the facility.

There have not been any changes at the facility since the last time Air Quality staff visited.

No.	Emission Unit or Flexible Group	Description	Permit Number or Exemption	Comp. Status
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1	EUBOOTH1A	Booth for applying stain and sealers.	1004-90I	C
2	EUBOOTH1B	Booth for applying stain and sealers.	1004-90I	C
3	EUBOOTH2	Booth for applying washcoats, sealers, and topcoats.	1004-90I	C
4	EUBOOTH3	Dismantled	NA	NA
5	EUBOOTH4	Automated conveyORIZED multi-spray head reciprocating booth and oven coating line.	1004-90H	C
6	FGFACILITY			

1 & 2. EUBOOTH1A & EUBOOTH1B: Booth A was in operation. Multiple layers of varying dimension cardboard filter paper is used in each booth to catch overspray. Booth A filters are changed every other week, while Booth B filters are changed every 6 months or so. Booth B is not used very often. Although, future plans at the facility may include shutting down booth A and moving all production to Booth B.

Booth discharge stacks appeared to satisfy the height and dimension requirements.

Records are being maintained as required. According to C. Fackler, the data input is collected as gallons of weekly inventory used. MSDS are used to determine VOC and HAP content of the coatings. Changes are made when new coatings or new formulations are added.

The spray booths utilize air assisted airless spray guns.

All waste coatings and purge solvent are collected and distilled for reuse. The stills are exempt from Rule 201 by Rule 285(u). Solvents are recycled and reused for purge and cleanup purposes. The stills are used for all coating lines. All coatings/solvents appeared to be covered when not in use.

3. EUBOOTH2: The discussion above applies to this emission group as well.

Each paint booth has its own supervisor in charge of it. The supervisor of this Booth 2 tracks filter replacement with the air intake and replaces as needed, which is every 3 weeks to a month.

The wood components finished in the above coating booths are cured in a belt conveyor natural gas fired oven.

4. EUBOOTH3: No longer in use, has been removed. Has also been removed in the latest version of the PTI.

5. EUBOOTH4: The Superfici/Binks Spray line and Lochinvar Oven is the newest line. It is an automated conveyerized multi-sprayhead reciprocating booth with a tunnel oven. It will be used for basecoats, topcoats, and sealers. The spray-heads are air assisted airless technology.

The conveyor automatically cleans itself and the solvent paint mix is returned to the spray pot for reuse.

Both the ovens vent out one stack, while the paint booth vents out a separate stack.

Inside the paint booth there is 3 layers of filters on the bottom. The first mesh layer is changed every day, the middle cardboard layer is changed as needed, and the third layer of mesh is changed every weekend. The mesh blend filter on the top is changed as needed, about every 2 weeks. When the filter needs to be changed, there will be some fugitive paint that escapes the small openings where the conveyer enters and exits the booth, and the quality of the paint application is also known to be compromised.

All coatings being used are the same, although, the coatings for Booth 4 may be changing soon as Sherwin Williams changes formulations.

6. FGFACILITY: Although acetone is not a VOC nor a HAP, it has been restricted as a toxic air contaminant of concern. The acetone portion of each coating is being recorded and included in compliance determinations.

Records of 12-month rolling emissions are being maintained as required. The following values show compliance.

FGFACILITY			
Pioneer Cabinetry 12 month period for 2021			
Pollutant	Reported	Limit	Unit
VOC + acetone	46.7	90.0	Ton/year
Formaldehyde	0.0087	0.2	Ton/year
Individual HAP (methyl isobutyl keton and xylene)	1.57 1.55	9.0	Ton/year
Aggregate HAP	4.03	22.5	Ton/year

Recordkeeping:

Titebond Wood Glue is used at the Glue Wheel for manual application followed by clamping. Usage of this glue is not currently accounted for in VOC emissions. This glue meets the

exemption 287(a) that limits adhesive coating to 2 gallons per day. Records received indicate that the glue usage is meeting the exemption limit of 2 gallons per day.

Emission Unit	Pollutant	Reported (tpy)	Limit (tpy)	Reporting Period
Booth 1A	VOC and Acetone combined	3.6	10	March 2021-Feb. 2022
Booth 1B	VOC and Acetone combined	0.89	10.5	March 2021-Feb. 2022
Booth 2	VOC and Acetone combined	7.8	29.3	March 2021-Feb. 2022
Booth 4	VOC and Acetone combined	26.45	38.4	March 2021-Feb. 2022

Summary: Facility appeared to be in compliance with their permit and all applicable state air regulations. No violations were noted during this inspection.

NAME *Samantha Davis*

DATE 4/8/22

SUPERVISOR *BM*