

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

A280968153

FACILITY: Mold Masters Company		SRN / ID: A2809
LOCATION: 1455 IMLAY CITY ROAD, LAPEER		DISTRICT: Lansing
CITY: LAPEER		COUNTY: LAPEER
CONTACT: Kirk Payne , Director of Sales		ACTIVITY DATE: 07/12/2023
STAFF: Daniel McGeen	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Partial Compliance Evaluation (PCE) activities conducted as part of a Full Compliance Evaluation: Inspection, and review of facility recordkeeping. Noncompliance for failure to stack test.		
RESOLVED COMPLAINTS:		

On July 12, 2023, the Michigan Department of Environment, Great Lakes, and Energy (EGLE), Air Quality Division (AQD) conducted an unannounced, scheduled inspection of Mold Masters Company (Mold Masters). This was conducted as a Partial Compliance Evaluation (PCE) activity, part of a Full Compliance Evaluation (FCE). Another PCE activity was also conducted, review of facility recordkeeping.

Environmental contacts:

- Angela Swiatkowski, CEO; 810-245-4100; swiatkowskia@mmasters.org
- Kirk Payne, Director of Sales; 810-614-4996; kpayne@mmasters.org

EGLE, AQD contact:

Dan McGeen, inspector; 517-648-7547; mcgeend@michigan.gov

Facility description:

The main process at Mold Masters is currently the flocking of plastic auto parts, which is done by applying nylon fibers on top of an adhesive coating. Some of the plastic parts are injection molded onsite. Parts may also be color coated, as required by the customer.

Emission units:

Emission Unit* ID	Emission Unit Description	Permit to Install (PTI) No. or Exemption Rule	Flexible Group** ID	Compliance Status
EURobot	Three automatic spray booths and one natural gas-fired curing oven using solvent and water-based coatings to paint plastic automotive interior parts.	PTI 368-06D	FGPurgeSolvents, FGACs	Not operating; compliance

	Overspray exhaust filters for each of the three booths.			
EUManual1- EUManual7	Manual spray booth No. 1-7 using solvent and water-based coatings to paint plastic automotive interior parts with a common infrared curing oven. Overspray exhaust filters for the booth.	PTI 368-06D	FGManual, FGPurgeSolvents, FGTACs	No longer in use
EUflockBooth1- EUflockBooth4, and EUflockBooth6- EUflockBooth8	Flock booth No. 1 using adhesive/glue and flocking material to paint plastic automotive interior parts with a common curing oven.	PTI 368-06D	FGFlock, FGRule632	Compliance
EUflockBooth5	Flock booth No. 5 using prime coatings to paint plastic automotive interior parts. Emission Unit does NOT include the use of purge and clean-up solvents (the purge and clean-up solvents are not being accounted for anywhere except for the opt-out in FG-FACILITY). The prime booth is controlled by a Regenerative Thermal Oxidizer (RTO).	PTI 368-06D	NA	Noncompliance for failure to stack test
Injection molding	Plastic injection molding lines	Michigan Air Pollution Control (MAPC) Rule 286(2)(b).	NA	Compliance
Solvent distillation unit	ECO Industries solvent distillation unit for acetone reclamation	MAPC Rule 285(2)(u)	NA	Not operating; compliance

***An emission unit is any part of a stationary source which emits or has the potential to emit an air contaminant.**

****A flexible group is used in a permit to install (PTI) or Renewable Operating Permit (ROP) to combine two or more emission units that have common or identical requirements.**

Flexible groups:

Flexible Group** ID	Flexible Group Description	Associated Emission Unit IDs	Compliance status
FGManual	Seven manual spray booths equipped with overspray exhaust filters and an infrared curing oven for application of solvent and water-based coatings to plastic automotive interior parts.	EUManual1-EUManual7	Compliance
FGFlock	Seven small spray booths equipped with exhaust filters and a curing oven. This area applies adhesives to plastic automotive interior parts prior to application of flock material. All boots are exhausted through once central system that exhausts to a particulate collection area prior to being exhausted to the outside air via a single common stack. Flexible group includes the use of purge and clean-up solvents.	EUFlock1-4, EUFlock6-8	Compliance
FGPurgeSolvents	The use of purge/clean-up solvents associated	EURobot, EUManual1-7	Compliance

	with EURobot and FGManual.		
FGTACs	The use of TACs associated with EURobot and FGManual.	EURobot, EUManual1-7	Compliance
FGRule632	All plastic parts coating lines source-wide, including plastic parts coating lines covered by other permits, which are exempted by R 336.1632 (15)(i).	EUFlockBooth1-4, EUFlockBooth6-8	Compliance

****A flexible group is used in a permit to install (PTI) or Renewable Operating Permit (ROP) to combine two or more emission units that have common or identical requirements.**

Regulatory overview:

Opt-out Permit to Install (PTI) No. 368-06D restricts the facility wide emissions of Volatile Organic Compounds (VOC) to below Title V Major Source thresholds. A *major source* has the potential to emit (PTE) of 100 tons per year (TPY) or more of any one of the criteria pollutants. The *criteria pollutants* are those for which a National Ambient Air Quality Standard (NAAQS) exists. These include carbon monoxide, nitrogen oxides, sulfur dioxide, VOCs, lead, particulate matter smaller than 10 microns (PM -10), and particulate matter smaller than 2.5 microns (PM2.5). Mold Masters is expected to be a minor source for these other criteria pollutants

Opt-out PTI No. 368-06C also restricts Mold Masters PTE for hazardous air pollutants, to keep it from becoming a major HAPs source. A *major HAPs source* has the PTE for 10 TPY or more for any single HAP and 25 TPY or more for aggregate HAPs. Because the opt-out permit keeps Mold Masters from becoming a major source for HAPs, it is considered an *area source*, or minor source, of HAPs.

Note: At an area sources of HAPs, spray application of coatings containing compounds of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd), (collectively referred to as the target HAP) to any part or product made of metal or plastic, that are not motor vehicles or mobile equipment, may be subject to 40 CFR 63 subpart HHHHHH, *Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources*. None of these compounds have been identified by the AQD in coatings used by Mold Masters. However; if coatings containing target HAPs are in use, or are used in the future, Mold Masters may be subject to this federal regulation. The U.S. Environmental Protection Agency has not delegated authority to AQD for this area source regulation, at this time.

Mold Masters is not subject to the federal boiler regulation for area sources, 40 CFR Part 63, Subpart JJJJJJ, because the only hot water heaters onsite are each less than 120 gallons in capacity, and so are considered exempt.

Mold Masters is subject to Administrative Consent Order (ACO) AQD No. 2023-03, which became effective on 1/4/2023. This consent order was entered into to resolve:

- exceedances of the VOC emission limit for seven spray booths identified as FGflock in PTI 368-06D.
- failure to submit a malfunction abatement plan (MAP) for the Regenerative Thermal Oxidizer (RTO).
- failure to operate the RTO in a satisfactory manner by not meeting VOC destruction efficiency requirements.

- failure to test for VOC destruction efficiency and determine if the enclosure meets the requirements of a Permanent Total Enclosure (PTE) in a timely manner.
- failure to notify the AQD in writing of the installation of the PTE and RTO.

Fee status:

Mold Masters is considered Category E fee-subject, because it has an opt-out/synthetic minor permit which keeps it from being subject to Title V of the Clean Air Act Amendments.

Mold Masters is required to submit air emission reports annually, via the Michigan Air Emissions Reporting System (MAERS), and its successor, MiEnviro.

Location:

- Address: 1455 Imlay City Road, Lapeer, 48446.
- Description: Mold Masters is located on the east side of the city of Lapeer. Several small residential developments wrap around the plant from north to east.. The nearest residential properties back up to the edge of the plant property. To the west, southwest, and south of the plant are numerous commercial establishments along Imlay City Road.

History:

This plant has had several names over the years including Voplex, Lapeer Fabricating, Cambridge Industries, and Meridian Automotive. Similar plastic molding and coating processes have been operated by each of these companies.

In 2012, Mold Masters had violations of their original PTI 368-06 for exceeding an emission limit for their flock coating flexible group. Mold Masters submitted a permit application for expanded production of their coating lines and for additional allowed emissions. A PTI 368-06B was issued on 5/23/2013, resolving the violation.

On 11/12/2014, a violation of 368-06B was issued for acetone use on the Robotic Line that exceeded the 3.6 ton/rolling 12 month period. The amount used was 6.8. As part of their compliance plan, Mold Master submitted an application to extend the limit. Permit 368-06C was issued and extended the acetone limit to 10.2 tons per year (TPY), resolving the violation.

On 2/15/2022, a VN was sent for failure to submit a MAP within 180 days of trial operation, failure to operate the RTO in a satisfactory manner based on a DE of less than 95%, failure to conduct stack testing within 180 days of trial operation to verify VOC DE and to verify that the enclosure meets the definition of PTE or to verify that the capture efficiency is 100%, and failure to notify AQD in writing of the completion of the installation or construction of the PTE or RTO.

On 5/20/2022, a second VN was sent for the same violations, due to lack of a response. These violations resulted in ACO AQD No. 2023-03 being issued on 1/4/2023.

On 5/5/2023, a VN was sent, for failing under ACO AQD 2023-03 Paragraph 10.A to conduct stack testing by 3/5/2023, 60 days from the effective date of the order. A violation of MAPC Rule 202 was included in the VN for failure to submit a MAERS report. Failure to submit a Supplemental Control Template (SCT) was also referenced, but this was erroneous, as Mold Masters had submitted the SCT in a timely fashion.

On 5/31/2023, a second VN was sent, as the company had not responded in writing to the 5/5/2023 VN.

On 6/21/2023, AQD inspector D. McGeen did an odor evaluation of Mold Masters. He attempted to inspect the plant, but the environmental contact was not available.

On 6/28/2023, D. McGeen stopped at the plant unannounced, and met with Kirk Payne, Director of Sales. K. Payne said the RTO was 94-95% for DE, but not quite to where they were ready to test. He said the manufacturer had not been responsive in trying to correct the problems with the RTO, so they were looking instead to a contractor to help solve the technical challenges. He said within a couple weeks they hoped to have a predicted date for a stack test.

Complaint history:

A file search found no complaints as far back as September 2001. Older files were sent to the State of Michigan Records Center, in the past.

Safety apparel required:

Safety glasses with side shields and, for certain areas of the plant, hearing protection. Steel-toed boots recommended.

Odor evaluation:

D. McGeen did two odor evaluations, one in the morning, and one in the afternoon.

Morning odor evaluation:

- Start time: 10:00 AM.
- Weather conditions: Cloudy, humid, and 67 degrees F, with winds out of the SE, 0-5 miles per hour (mph).
- Route taken: East on Imlay City Rd. from the intersection with Saginaw St., north on Myers Rd., and east on Deepwood Dr. into a residential subdivision east of the plant. This was followed by taking Myers Rd. north to Tanglewood Dr., a residential road just north of the plant.

Morning odor evaluation results:

Location	Time	Odor Level	Odor Description	Comments
Imlay City Rd.	10:01 AM	1	Fast food	West of McDonald's.
Tanglewood Dr. and Tanglewood Dr.	10:10 AM	1	Too faint to ID	In residential area, north of Mold Masters, where the Tanglewood Dr. loop reconnects to itself.

Afternoon odor evaluation:

- Start time: 12:57 PM
- Weather conditions: Partly sunny and humid, 73 degrees F, with winds out of the NE at 0-5 mph.
- Route taken: East on Imlay City Rd. from the intersection with Saginaw St., north on Myers Rd., and west on Tanglewood Dr., a residential road just north of the plant.

Afternoon odor evaluation results:

Location	Time	Odor Level	Odor Description	Comments
Tanglewood Dr. and Tanglewood Dr.	12:59 PM	1	Lawn fertilizer and grass odor	Residential source

Arrival:

This was an unannounced inspection. AQD was represented by D. McGeen. When he initially arrived during the morning hours on 7/12, he was informed that Kirk Payne, Director of Sales, was offsite. D. McGeen soon received a call that K. Payne would drive out to the plant to meet at 1:00 PM, and conduct the inspection at that time.

- Afternoon arrival time: 1:01 PM.
- Weather conditions: Mostly cloudy and humid, 74 degrees F, with winds out of the N at 0-5 mph.
- Visible emissions from roofline: None.
- Odors detected in parking lot: None.

D. McGeen met with K. Payne and explained the objectives of the inspection.

Inspection:**EURobot, PTI 368-06D:**

This consists of three automatic spray booths and one natural gas-fired curing oven using solvent and water-based coatings to paint plastic automotive interior parts.

The three robotic spray booths were not operating today. AQD was informed that they operate 1 day/week. AQD was also advised that on rare occasions, manual painting occurs in one of these booths.

Behind the 3 robotic paint application processes, the wall was covered by a large mat or roll of filter material. The color of paint applied is usually black, with some beige.

- Filter: Large mat or panel filter.
- Location: Wall behind robots.
- Condition: good.
- Changing frequency: every other time the robots operate, as throughput is said to be low.
- Disposal methods for filters: In bags, which go indumpsters.

Oven temperature is said to be monitored, when they operate.

EUFlockBooth5, PTI 368-06D:

Process: Flock fibers are small nylon fibers which are glued to parts with a water-based white glue. Before the white glue will stick to plastic parts, a primer or adhesion promoter must be applied.

Parts to receive adhesion promoter enter a booth on a spinning turntable, and this coating - a clear primer - is applied. UV light is used to check for complete coverage. The coating air dries at room temperature; i.e., a flash air dry. The adhesion promoter had a faint, acetone-like smell.

EUflockBooth5 is served by the RTO, to control VOC emissions.

RTO data was collected as follows:

- RTO burn chamber temp.: 1529 deg. F
- Exhaust fan pressure: 1.93 inches, water column (w.c.)
- RTO inlet temp.: 84 degrees F
- RTO outlet temp.: 396 deg. F
- System differ. xmtr: 9.91" w.c.
- Chamber left: 1526 deg. F
- Chamber right: 1522 deg. F
- Bed A UP:
 - TE-403: 1600 deg. F
 - TE-406: 1581 deg. F
- Bed A DN:
 - TE-405: 203 deg. F
 - TE-408: 231 deg. F
- Actual Process Value (PV): 1519 deg. F
- Set Point (SP): 1750 deg. F (alarm if over 1750 deg. F)
- Every 30 days they dump RTO data to server. The RTO itself has a 90-day memory, but putting the data on the server preserves the data long term.
- RTO air inlet is changed every 5-6 days. A log sheet showed it was changed on: 7/11/2023, 7/7/023, 6/30/2023, and every 5 or 6 days prior.

After walking up a steep earthen embankment, it could be seen that there were no visible emissions from the RTO exhaust stack. Due to the steepness of this slope, a better option from a safety standpoint would be to walk to the north of the plant, where the ground rises more gradually.

Stack testing scheduled for 9/22/2023 is to determine the VOC DE and the CE of the PTE. The AQD Lansing District Office and the AQD Technical Programs Unit plan to attend.

FGFlock, PTI 368-06D:

Following the application of an air-dried adhesion promoter in EUflockBooth5, plastic parts go to the processes in FGFlock. There are 5 glue booths (7 are permitted), where a water-based, white glue is spray-applied to parts on turntables.

FGFlock white glue booth particulate filters:

- Type: mat/panel filters
- Location: overhead, in hoods over the glue booths
- Condition: good
- Changing frequency: daily
- Disposal method: bagging and placing in solid waste dumpster

After white glue is applied, robots apply flock in enclosed flocking booths. The flocking material consists of black nylon fibers. Flock fibers which do not get captured by the glue settle in bottom of the booths, are vacuumed up and reclaimed. A vacuum is located in the bottom of each flock booth

Parts go through a curing oven after the water-based glue and flocking materials are applied. The oven for the FGFlock glue booths was running.

- High limit cut-off: 225 deg. F

- Low end cut-off: 185 deg. F
- Process Value (PV): 190.2-190.5 deg. F
- Set Point (SP): 190.00 deg. F
- Permit 368-06D limit for oven temperature: NA

Post-curing oven, bagfilters reclaim loose flock fibers. There were no visible emissions from the bag filters. There were some flock fibers on the plant floor, and AQD was advised that they have a Zamboni machine which is used to clean the plant floor every other day. Outside a nearby cargo door, there was a minor amount of flock tracked out. AQD was advised that every other day, and before any rain event, they have their Zamboni machine clean up any trackout outside.

FGManual, PTI 368-06D:

This consists of seven manual spray booths equipped with overspray exhaust filters and an infrared curing oven for application of solvent and water-based coatings to plastic automotive interior parts. AQD was advised the manual booths are not in use anymore. They found that there was too much operator variability in paint film thickness, plus paint types were different and customers each had different specifications. It is AQD's understanding that robots can be programmed for precise paint film thicknesses, paint types, and varying customer specifications.

ECO-Industries solvent distillation unit; MAPC Rule 285(2)(u):

This solvent distillation unit is for reclamation of acetone. It was not running at the moment. A display panel gave a reading of the ambient temperature, 75-76 degrees F.

Plastic injection molding; MAPC Rule 286(2)(b):

There were numerous plastic injection molding processes operating. There were no visible emissions, and there were no excessive odors.

COMPLIANCE CHECKLIST OF SELECTED SPECIAL CONDITIONS OF PTI 368-06D:

EURobot EMISSION UNIT CONDITIONS

- DESCRIPTION Three automatic spray booths and one natural gas-fired curing oven using solvent and water-based coatings to paint plastic automotive interior parts.
- Flexible Group ID: FGPurgeSolvents, FGTACs
- POLLUTION CONTROL EQUIPMENT Overspray exhaust filters for each of the three booths to control particulate matter.

Compliance check with selected special conditions (SC) for PTI 368-06D, EURobot:

PTI 368-06D SC	Requirement	Comments	Complies?
	VOC emission limit of 65.0 TPY		Yes

EURobot, SC I.1		DEQ Permit Limit Summary record received 9/26/2023 indicated 12- month rolling VOCs as of June 2023 were 0.43 tons, far below the limit.	
EURobot, SC I.2	Acetone emission limit of 10.2 TPY	DEQ Permit Limit Summary record received 9/26/2023 indicated 12- month rolling acetone emissions as of June 2023 were 0.00 tons	Yes
EURobot, SC 1.3	VOC content of coatings of 5.0 lbs/gal (minus water) as applied.	DEQ Permit Limit Summary record received 9/26/2023 indicated a blank space for VOC content of coatings. AQD has received, as of 9/29/2023, an answer on this.	TBD
EURobot, SC II.1	VOC content of adhesion promoter of 4.6 lbs/gal (minus water) as applied.	NA, as EURobot does not use adhesion promoter. One was once used, years ago.	NA
EURobot, SC III.1	The permittee shall recover and reclaim, recycle, or dispose of all paints, coatings, reducers, solvents, thinners, glue/adhesives, etc. (material), in accordance with all applicable regulations.	AQD was shown where waste paints and/or solvents were stored. They were in sealed containers, including hazardous waste containers.	Yes
EURobot, SC III.2	The permittee shall capture all waste materials and shall store them in closed containers. The permittee shall dispose of all waste materials in an acceptable manner in compliance with all applicable state rules and federal regulations.	AQD was shown where waste paints and/or solvents were stored. They were in sealed containers, including hazardous waste containers.	Yes

EURobot, SC III.3	The permittee shall dispose of spent filters in a manner which minimizes the introduction of air contaminants to the outer air.	Used particulate filters are reportedly bagged and placed in a dumpster.	Yes
EURobot, SC III.4	The permittee shall handle all VOC and/or HAP containing materials, including coatings, reducers, solvents, and thinners, in a manner to minimize the generation of fugitive emissions. The permittee shall keep containers covered at all times except when operator access is necessary.	All VOC and/or HAP containing materials appeared to be in covered containers.	Yes
EURobot, SC III.5	The permittee shall not operate the bake oven portion of EURobot at a temperature in excess of 194°F	Neither the spray booths nor the bake oven were operating, so compliance could not be checked.	Not operating
EURobot, SC IV.1	The permittee shall not operate EURobot unless all respective exhaust filters are installed, maintained, and operated in a satisfactory manner.	Although EURobot was not running, the exhaust fil	Yes
EURobot, SC IV.2	The permittee shall equip and maintain EURobot with HVLP applicators or comparable technology with equivalent transfer efficiency. For HVLP applicators, the permittee shall keep test caps available for pressure testing.	Every line in the plant is said to have HVLP applicators, and pressure test caps are said to be available.	Yes
EURobot, SC IV.3	The permittee shall install, calibrate, maintain, and operate in a satisfactory manner a device to monitor and record the bake oven temperature on a continuous basis.	The company has a temperature sensor for the ovens. Recording done by hand, which does not meet what federal regulations consider continuous (once every 15 minutes). Run a data pack through oven, and the data is saved.	Yes
EURobot, SC V.1	The permittee shall determine the VOC content, water content and density of any coating, as applied and as received, using federal Reference Test Method 24. Upon prior	The company has expressed their intention to submit a request to use manufacturer's data in	Pending

	<p>written approval by the AQD District Supervisor, the permittee may determine the VOC content from manufacturer’s formulation data. If the Method 24 and the formulation values should differ, the permittee shall use the Method 24 results to determine compliance.</p>	<p>lieu of Method 24 but has not done so yet.</p>	
<p>EURobot, SC VI.1</p>	<p>The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition</p>	<p>The format appears to be acceptable.</p>	<p>Yes</p>
<p>EURobot, SC VI.2</p>	<p>The permittee shall maintain a current listing from the manufacturer of the chemical composition of each material, including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer’s formulation data, or both as deemed acceptable by the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request</p>	<p>This is done.</p>	<p>Yes</p>
<p>EURobot, SC VI.3</p>	<p>The permittee shall keep the following information on a calendar day basis for EURobot:</p> <p>a) Gallons (with water) of each VOC containing material used.</p> <p>b) VOC content (minus water and with water) of each material as applied.</p> <p>c) VOC emission calculations determining the volume-weighted average VOC content of the coatings as applied on a calendar day basis.</p> <p>d) VOC mass emission calculations determining the monthly emission rate in tons per calendar month.</p>	<p>On 9/26/2023, records were provided for the 12-month rolling values for EURobot. AQD will ask the company.</p> <p>a.) Tracked through their AS400 system, a calculation that comes out of billable materials.</p> <p>b.) K. Payne will email this. Tracked daily.</p> <p>c.) K. Payne will email this. Tracked daily.</p> <p>d.) K. Payne will email this. Tracked daily.</p>	<p>Yes for e., and TBD for a., b., c., and d.</p>

	<p>e) VOC mass emission calculations determining the annual emission rate in tons per 12-month rolling time</p> <p>period as determined at the end of each calendar month.</p> <p>The permittee shall keep the records using mass balance, or an alternative format acceptable to the AQD District</p> <p>Supervisor. The permittee shall keep all records on file and make them available to the Department upon request.</p>	<p>e.) VOC calculations for a 12-month rolling time period were provided.</p>	
EURobot, SC VIII.1	<p>For SVRobot1 (Booth1), the exhaust gases shall be discharged unobstructed vertically upwards to the ambient air through a stack with a maximum diameter of 36 inches and a minimum height above ground level of 32 feet.</p>	<p>AQD could not see the stacks from ground level, but based upon building height, it appeared that the stack height requirement would be met.</p>	Yes
EURobot, SC VIII.2	<p>For SVRobot2 (Booth 2), the exhaust gases shall be discharged unobstructed vertically upwards to the ambient air through a stack with a maximum diameter of 36 inches and a minimum height above ground level of 32 feet.</p>	<p>AQD could not see the stacks from ground level, but based upon building height, it appeared that the stack height requirement would be met.</p>	Yes
EURobot, SC VIII.3	<p>For SVRobot3 (Booth 3) the exhaust gases shall be discharged unobstructed vertically upwards to the ambient air through a stack with a maximum diameter of 36 inches and a minimum height above ground level of 32 feet.</p>	<p>AQD could not see the stacks from ground level, but based upon building height, it appeared that the stack height requirement would be met.</p>	Yes
EURobot, SC VIII.4	<p>For SVRobot4 (Oven), the exhaust gases shall be discharged unobstructed vertically upwards to the ambient air through a stack with a</p>	<p>AQD could not see the stacks from ground level, but based upon building height, it appeared that</p>	Yes

	maximum diameter of 18 inches and a minimum height above ground level of 32 feet.	the stack height requirement would be met.	
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EUFlockBooth5 EMISSION UNIT CONDITIONS

- DESCRIPTION Floc booth No. 5 using prime coatings to paint plastic automotive interior parts. Emission Unit does NOT include the use of purge and clean-up solvents (the purge and clean-up solvents are not being accounted for anywhere except for the opt-out in FG-FACILITY). The prime booth is controlled by a Regenerative Thermal Oxidizer (RTO).
- Flexible Group ID: NA
- POLLUTION CONTROL EQUIPMENT A Permanent Total Enclosure (PTE) and Regenerative Thermal Oxidizer (RTO) to control VOC. Overspray exhaust filters to control particulate matter

Compliance check with selected SC for PTI 368-06D, EUFlockBooth5:

PTI 368-06D SC	Requirement	Comments	Complies?
EUFlockBooth5, SC I.1	VOC emission limit of 3.6 TPY	The Monthly DEQ Report for EUFlockBooth 5 (attached) showed that the highest 12-month rolling value between June 2022 and June 2023 was 2.22 tons, in January 2023.	Yes
EUFlockBooth5, SC II.	NA	NA	NA
EUFlockBooth5, SC III.1	The permittee shall capture all waste prime coatings (materials) and shall store them in closed containers. The permittee shall dispose of all waste materials in an acceptable manner in compliance with all applicable state rules and federal regulations.	AQD was shown where waste paints and/or solvents were stored. They were in sealed containers, including hazardous waste containers.	Yes
EUFlockBooth5, SC III.2	The permittee shall dispose of spent filters in a manner which minimizes the introduction of air contaminants to the outer air.	Used particulate filters are reportedly	Yes

		bagged and placed in a dumpster.	
EUFlockBooth5, SC III.3	The permittee shall handle all VOC and/or HAP containing materials, in a manner to minimize the generation of fugitive emissions. The permittee shall keep containers covered at all times except when operator access is necessary.	All VOC and/or HAP containing materials appeared to be in covered containers.	Yes
EUFlockBooth5, SC III.4	Within 180 days from commencement of trial operation of the RTO associated with EUFlockBooth5, the permittee shall submit, implement, and maintain a malfunction abatement plan (MAP) as described in Rule 911(2). The MAP shall, at a minimum, specify the following:	Although originally not submitted within 180 days from the start of trial operation, the company subsequently submitted a MAP on 2/3/2023, after this had been cited in a VN.	Yes
EUFlockBooth5, SC III.4.a	A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement	These were included.	Yes
EUFlockBooth5, SC III.4.b	An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.	These were included.	Yes
EUFlockBooth5, SC III.4.c	A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve	These were included.	Yes

	compliance with the applicable emission limits.		
EUFlockBooth5, SC III.4.d	<p>A description of the procedures to capture, handle, and dispose of all materials to minimize the generation of fugitive emissions per SC numbers III.1 and III.3.</p> <p>If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 30 days after such an event occurs. The permittee shall also amend the MAP within 30 days if new equipment is installed or upon request from the AQD District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved.</p>	<p>These were included.</p> <p>AQD identified a minor omission within the MAP, and the company promptly corrected it.</p>	Yes
EUFlockBooth5, SC III.5.	<p>The permittee shall either maintain a minimum of 0.007 inches of water pressure differential between each PTE and the adjacent area on a continuous basis or maintain a facial velocity of 200 feet per minute through each natural draft opening of the PTE on a continuous basis.</p>	<p>To be determined (TBD) during a pending stack test. Stack testing planned for 9/22/2023 was postponed, due to FlockBooth5 being idled by a UAW strike.</p>	TBD
EUFlockBooth5, SC IV.1	<p>The permittee shall not operate EUFlockBooth5 unless all respective exhaust filters are installed, maintained, and operated in a satisfactory manner.</p>	<p>Exhaust filters appeared to be installed, maintained, and operated in a satisfactory manner.</p>	Yes
EUFlockBooth5, SC IV.2	<p>The permittee shall equip and maintain EUFlockBooth5 with HVLP or comparable</p>	<p>Every line in the plant is said to have HVLP</p>	Yes

	technology with equivalent transfer efficiency. For HVLP applicators, the permittee shall keep test caps available for pressure testing.	applicators, and pressure test caps are said to be available.	
EUFlockBooth5, SC IV.3	The permittee shall not operate EUFlockBooth5 unless the Regenerative Thermal Oxidizer (RTO) and the associated PTE are installed, maintained, and operated in a satisfactory manner. Satisfactory operation of the RTO includes a minimum VOC destruction efficiency of 95 percent (by weight), maintaining a minimum temperature of 1,525° F or the minimum combustion zone temperature from the most recent acceptable stack test, and a minimum retention time of 0.5 seconds. Satisfactory operation of the PTE includes a minimum capture efficiency from PTE portion associated with EUFlockBooth5 of 100 percent (by weight).	TBD during a pending stack test. Stack testing planned for 9/22/2023 was postponed, due to FlockBooth5 being idled by a UAW strike.	TBD
EUFlockBooth5, SC IV.4	The permittee shall install, calibrate, maintain, and operate in a satisfactory manner, a temperature monitoring device in the combustion chamber of the RTO to monitor and record the temperature, on a continuous basis, during operation of EUFlockBooth5.	AQD observed the RTO's data display panel, and collected data.	Yes

FGManual FLEXIBLE GROUP CONDITIONS

- DESCRIPTION Seven manual spray booths equipped with overspray exhaust filters and an infrared curing oven for application of solvent and water-based coatings to plastic automotive interior parts.
- Emission Unit: EUManual1, EUManual2, EUManual3, EUManual4, EUManual5, EUManual6, EUManual7
- POLLUTION CONTROL EQUIPMENT Overspray exhaust filters for each booth to control particulate matter.

Compliance check with selected SC for FGManual:

PTI 368-06D SC	Requirement	Comments	Complies?
	VOC emission limit of 9.1 TPY.		Yes

FGManual, SC I.1		Said to very rarely used, only for test purposes. FGManual records show it operated last in Feb. and May 2023. The DEQ Permit Limit Summary record indicated 12-month rolling VOCs as of June 2023 were 0.12 tons.	
FGManual, SC I.2	VOC content of coatings 5.0 lb/gal (minus water), as applied.	Said to very rarely be used, last operated in Feb. and May 2023. A blank space was provided for VOC content of coatings in the DEQ Permit Limit Summary record, because it uses a VOC-free, water-based glue, like the flock booths.	Yes
FGManual, SC II.1	VOC content of adhesion promoter 4.6 lb/gal (minus water), as applied.	NA, as no adhesion promoter is applied in manual booths.	NA
FGManual, SC IV.2	The permittee shall equip and maintain FGManual with HVLP applicators or comparable technology with equivalent transfer efficiency. For HVLP applicators, the permittee shall keep test caps available for pressure testing	Said to very rarely be used, but every line in the plant reportedly has HVLP applicators, and pressure test caps are said to be available.	Yes

FGFlock FLEXIBLE GROUP CONDITIONS

- DESCRIPTION Seven small spray booths equipped with exhaust filters and a curing oven. This area applies adhesives to plastic automotive interior parts prior to application of flock material. All booths are exhausted through one central system that exhausts to a particulate collection area prior to being exhausted to the outside air via single common stack. Flexible group includes the use of purge and clean-up solvents.
- Emission Unit: EUFlockBooth1, EUFlockBooth2, EUFlockBooth3, EUFlockBooth4, EUFlockBooth6, EUFlockBooth7, EUFlockBooth8
- POLLUTION CONTROL EQUIPMENT Overspray exhaust filters for each booth to control particulate matter.

PTI 368-06D SC	Requirement	Comments	Complies?
	VOC emission limit of 2000 lbs/month		TBD

FGFlock, SC I.1		Records emailed to AQD did not appear to show the monthly VOC emissions. AQD asked K. Payne to follow up.	
FGFlock, SC I.2	VOC emission limit of 2.5 TPY	The 12-month rolling VOC value as of June 23 was reported as 1.09 tons in the DEQ Permit Limit Summary record.	Yes
FGFlock, SC II.	NA	NA	NA
FGFlock, SC III.1	The permittee shall recover and reclaim, recycle, or dispose of all paints, coatings, reducers, solvents, thinners, glue/adhesives, etc. (material), in accordance with all applicable regulations.	AQD was shown where waste paints and/or solvents were stored. They were in sealed containers, including hazardous waste containers.	Yes
FGFlock, SC III.2	The permittee shall capture all waste materials and shall store them in closed containers. The permittee shall dispose of all waste materials in an acceptable manner in compliance with all applicable state rules and federal regulations.	All waste materials appeared to be in sealed containers.	Yes
FGFlock, SC III.3	The permittee shall dispose of spent filters in a manner which minimizes the introduction of air contaminants to the outer air.	Used particulate filters are reportedly bagged and placed in a dumpster.	Yes
FGFlock, SC III.4	The permittee shall handle all VOC and / or HAP containing materials, including coatings, reducers, solvents, and thinners, in a manner to minimize the generation of fugitive emissions. The permittee shall keep containers covered at all times except when operator access is necessary.	All VOC and/or HAP containing materials appeared to be in covered containers.	Yes

FGFlock, SC IV.1	The permittee shall not operate FGFlock unless all respective exhaust filters are installed, maintained, and operated in a satisfactory manner.	Particulate filters are installed overhead in the glue booths, in front of the booth exhaust outlet. They were in good shape and were said to be changed daily.	Yes
FGFlock, SC IV.2	The permittee shall equip and maintain FGFlock with HVLP applicators or comparable technology with equivalent transfer efficiency. For HVLP applicators, the permittee shall keep test caps available for pressure testing.	Every line in the plant is said to have HVLP applicators, and pressure test caps were said to be available.	Yes
FGFlock, SC V.1	The permittee shall determine the VOC content, water content and density of any coating, as applied and as received, using federal Reference Test Method 24. Upon prior written approval by the AQD District Supervisor, the permittee may determine the VOC content from manufacturer's formulation data. I	The company was advised that they need to submit a request to use manufacturer formulation data in lieu of Method 24. The company has stated their intent to do so.	Pending
FGFlock, SC VI.1	The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.	Not all records have been reviewed by AQD yet.	TBD
FGFlock, SC VI.2	The permittee shall maintain a current listing from the manufacturer of the chemical composition of each material, including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request	They are said to be doing this.	Yes
FGFlock, SC VI.3		See records.	TBD

	<p>The permittee shall keep the following information on a calendar month basis for FGFlock and for each EU in FGFlock separately:</p> <p>a) Gallons (with water) of each VOC containing material used.</p> <p>b) VOC content (with water) of each material as applied.</p> <p>c) VOC mass emission calculations determining the monthly emission rate in pounds and tons per calendar month.</p> <p>d) VOC mass emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.</p> <p>The permittee shall keep the records using mass balance, or an alternative format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request.</p>	<p>K. Payne indicated he will email this info.</p>	
<p>FGFlock, SC. VII.</p>	<p>NA</p>	<p>NA</p>	<p>NA</p>
<p>FGFlock, SC VIII.1</p>	<p>For SVFlock, exhaust gases shall be discharged unobstructed to the ambient air through a stack with a maximum diameter of 18 inches and a minimum height above ground level of 8 feet.</p>	<p>AQD did not observe this stack during the inspection, but based on building height, the stack is expected to meet the minimum elevation requirement.</p>	<p>Yes</p>
<p>FGFlock, SC IX.</p>	<p>NA</p>	<p>NA</p>	<p>NA</p>

FGPurgeSolvents FLEXIBLE GROUP CONDITIONS

- DESCRIPTION The use of purge/clean-up solvents associated with EURobot and FGManual. Emission Unit: EURobot, EUManual1, EUManual2, EUManual3, EUManual4, EUManual5, EUManual6, EUManual7

- POLLUTION CONTROL EQUIPMENT NA

PTI 368-06D SC	Requirement	Comments	Complies?
FGPurgeSolvents, SC I.1	Acetone emission limit of 3.3 TPY over a 12-month rolling time period.	The 12-month rolling value for acetone was listed as 0.6 tons in the DEQ Permit Limit Summary record.	Yes
FGPurgeSolvents, SC II.	NA	NA	NA
FGPurgeSolvents, SC III.1	The permittee shall recover and reclaim, recycle, or dispose of, in accordance with all applicable regulations, a minimum of 95 percent by weight of all purge solvents used for FGPurgeSolvents.	The company has a solvent distillation unit onsite to clean and reclaim acetone. It is not clear exactly how much acetone is recovered, as there is no way to measure it. Some small amount was believed to be disposed of as hazardous waste. Kirk will check past records with older, heavier paints.	Yes
FGPurgeSolvents, SC III.2	The permittee shall capture all waste solvents and shall store them in closed containers. The permittee shall dispose of all waste in an acceptable manner in compliance with all applicable state rules and federal regulations.	Waste solvents appeared to be stored in closed containers.	Yes
FGPurgeSolvents, SC IV.	NA	NA	NA
FGPurgeSolvents, SC V.	NA	NA	NA

FGTACs FLEXIBLE GROUP CONDITIONS

- DESCRIPTION The use of TACs associated with EURobot and FGManual. Emission Unit: EURobot, EUManual1, EUManual2, EUManual3, EUManual4, EUManual5, EUManual6, EUManual7
- POLLUTION CONTROL EQUIPMENT NA

PTI 368-06D SC	Requirement	Comments	Complies?
FGTACs, SC I.1	Para-Chlorobenzotrifluoride emission limit of 4.9 TPY, over a 12-month rolling time period.	Emissions reported as 0.00 tons, in DEQ Permit Limit Summary record.	Yes
FGTACs, SC I.2	Tert-butyl Acetate emission limit of 17.6 TPY, over a 12-month rolling time period.	Emissions reported as 0.00 tons, in DEQ Permit Limit Summary record.	Yes
FGTACs, SC II.	NA	NA	NA
FGTACs, SC III.	NA	NA	NA
FGTACs, SC IV.	NA	NA	NA
FGTACs, SC V.	NA	NA	NA
FGTACs, SC V1.1	The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.	This appears to have been done.	Yes
FGTACs, SC VI.2	The permittee shall maintain a current listing from the manufacturer of the chemical composition of each material,	They are said to be doing this.	Yes

	<p>including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer’s formulation data, or both as deemed acceptable by the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request</p>		
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FGRule632 FLEXIBLE GROUP CONDITIONS

- DESCRIPTION All plastic parts coating lines source-wide, including plastic parts coating lines covered by other permits, which are exempted by R 336.1632(15)(i).
- Emission Units: EUFlockBooth1, EUFlockBooth2, EUFlockBooth3, EUFlockBooth4, EUFlockBooth6, EUFlockBooth7, EUFlockBooth8
- POLLUTION CONTROL EQUIPMENT Exhaust filters to control particulate matter

PTI 368-06D SC	Requirement	Comments	Complies?
FGRule632, SC I.1	<p>VOC emission limit of 30 TPY from all plastic parts coating lines sourcewide, including plastic parts coating lines covered by other permits, which are exempted by R 336.1632(15)(i).</p>	<p>The DEQ Permit Limit Summary record received 9/27/2023 reports 12-month rolling VOCs plantwide were 1.64 tons, as of June 2023.</p>	Yes
FGRule632, SC II.	NA	NA	NA
FGRule632, SC III.	NA	NA	NA
FGRule632, SC IV.	NA	NA	NA
FGRule632, SC V.1	<p>The permittee shall determine the VOC content, water content, and density of any coating used to coat plastic parts, as applied and as received, using federal Reference Test</p>	<p>The company has expressed their intention to submit a request to use manufacturer’s data in lieu</p>	Pending

	<p>Method 24. Upon prior written approval by the AQD District Supervisor, the permittee may determine the VOC content from manufacturer’s formulation data.</p>	<p>of Method 24 but has not done so yet.</p>	
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FGFACILITY CONDITIONS

- DESCRIPTION: The following conditions apply source-wide to all process equipment including equipment covered by other permits, grand-fathered equipment, and exempt equipment.
- POLLUTION CONTROL EQUIPMENT For permitted EU, as listed above in each EU and FG.

Compliance check of selected conditions in FGFacility:

PTI 368-06D SC	Requirement	Comments	Complies?
FGFacility, SC I.1	Each individual HAP emission limit < 9.0 TPY, over a 12-month rolling time period.	The DEQ Permit Limit Summary Table received on 9/26/2023 was blank on this. K. Payne indicated he will email this.	TBD
FGFacility, SC I.2	Aggregate HAPs emission limit < 22.5 TPY, over a 12-month rolling time period.	The DEQ Permit Limit Summary Table indicated 12-month rolling aggregate HAPs were 14.32 tons.	Yes
FGFacility, SC I.3	VOC emission limit < 90 TPY, over a 12-month rolling time period.	The DEQ Permit Limit Summary Table indicated 12-month rolling VOCs were 1.64 tons.	Yes
FGFacility, SC I.4	Napthalene emission limit of 876.0 lbs/year, over a 12-month rolling time period.	The DEQ Permit Limit Summary Table indicated 12-month rolling naphthalene was 1.33 lbs.	Yes

FGFacility, SC I.5	Cumene emission limit of 1,314.0 lbs/yr, over a 12-month rolling time period.	The DEQ Permit Limit Summary Table indicated 12-month rolling naphthalene was 3.09 lbs.	Yes
FGFacility, SC II.	NA	NA	NA
FGFacility, SC III.	NA	NA	NA
FGFacility, SC IV.	NA	NA	NA
FGFacility, SC V.1	The permittee shall determine the HAP content of any paint, coating, reducer, solvent, thinners, glue/adhesive, etc. (material) as received and as applied, using manufacturer's formulation data. Upon request of the AQD District Supervisor, the permittee shall verify the manufacturer's HAP formulation data using EPA Test Method 311.	The company appears to be doing this.	Yes
FGFacility, SC V.2	The permittee shall determine the VOC content, water content, and density of any coating, as applied and as received, using federal Reference Test Method 24. Upon prior written approval by the AQD District Supervisor, the permittee may determine the VOC content from manufacturer's formulation data.	The company was advised that they need to submit a request to use manufacturer formulation data in lieu of Method 24. The company has stated their intent to do so.	Pending
FGFacility, SC VI.1	The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.	AQD has received, as of 9/29/2023, recordkeeping relating to individual HAPs.	TBD
FGFacility, SC VII.	NA	NA	NA

FGFacility, SC VIII.	NA	NA	NA
FGFacility, SC IX.	NA	NA	NA

AQD left the site at 2:13 PM.

Post-inspection activities:

- Stack testing iwa proposed for 9/22/2023, for DE for the RTO and for CE, but was postponed. K. Payne explained that the ongoing auto strike resulted in lines at the plant being idled. Stack testing will be rescheduled as soon as possible, AQD has been advised.
- AQD has received additional VOC and HAPs records, as of 9/29/2023, and will be reviewing those. .

Conclusion:

No new instances of noncompliance were identified during the inspection. The continuing lack of stack testing for the RTO is the main compliance concern.

NAME 

DATE 9/29/2023

SUPERVISOR 