

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

N661132134

FACILITY: E / M Coating Services, a Div. of Curtiss Wright		SRN / ID: N6611
LOCATION: 14830 E 23 Mile Rd, SHELBY TWP		DISTRICT: Southeast Michigan
CITY: SHELBY TWP		COUNTY: MACOMB
CONTACT: Lisa Chehab Manelski, EH&S Coordinator		ACTIVITY DATE: 12/29/2015
STAFF: Rem Pinga	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Unannounced Level 2 Target Inspection		
RESOLVED COMPLAINTS:		

On 12/29/2015, I conducted an unannounced level 2 target inspection at E/M Coating Services of Curtiss-Wright Corporation. The facility is located at 14830 23 Mile Road, Shelby Township, Michigan 48315-3005. The purpose of the inspection was to determine the facility's compliance with the requirements of the federal Clean Air Act; Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451), the administrative rules, and the facility's Permit to Install No. 43-99D and Permit to Install No. 163-13. During the pre-inspection meeting, I initially showed my credential (ID Badge), stated the purpose of my visit, and gave a copy of the pamphlet "Environmental Inspections: Rights and Responsibilities" to Ms. Lisa Chehab Manelski, EH & S Coordinator and facility contact person. Mr. Jeff Hall is the facility Plant Manager and Mr. Byron Beattie is the Curtiss-Wright Corporate EHS Manager. I was also at the facility on 10/16/2015 for an initial inspection and to help Ms. Manelski with recordkeeping issues.

The facility coats miscellaneous metal parts. Permit to Install (PTI) No. 43-99D was issued to the facility on April 17, 2012 to address the facility's noncompliance issue relative to capture efficiency/destruction efficiency as contained in PTI No. 43-99C. The facility accepted 85% capture efficiency and a minimum of 90% destruction efficiency per the results of VOC capture and destruction testing conducted prior to issuance of PTI No. 43-99D. This equates to 76.5% effective VOC control efficiency. The company utilizes a lower 73.5% control efficiency as conservative factor to show compliance with emission limits to create a 3% buffer.

PTI No. 43-99D was also issued as a synthetic minor permit to opt the facility out of the Renewable Operating Permit (ROP) Program as mandated by Title V of the Clean Air Act of 1990. To be considered as synthetic minor, the permit contained enforceable restrictions to limit the facility wide VOC emissions to 90 tons/year, the single Hazardous Air Pollutant (HAP) emission to less than 9 tons/year, and the aggregate HAP emissions to less than 22.5 tons/year.

PTI No. 43-99D contained the following emission units and flexible groups:
EUROBOT,

EUHANDSPRAY, EUDUAL24, EURONCI, EUTUMBLER, EUGRITBLAST, EUBOWLBLAST, EUPHOSPHATE, FGVOCS, and FGFACILITY. EUDUAL24, also known as Model 24, refers to a dip coating process line with an enclosed curing oven. The dip tank is connected to SVCONTROL while the curing oven is ducted to outside air. During the inspection, I observed this emission unit was operating.

EUROBOT refers to a coating process line that starts with a manual spray booth, Spray Booth 2 (no longer reflected in EUHANDSPRAY), circles around to the automatic coating process booth, Robotic Booth, and goes to curing/drying oven. Spray Booth 2 and the Robotic Booth are located back to back from each other and form part of the Overhead Coating Line. I observed filters in place and HVLP gun for the manual spray booth. Booth emissions were ducted to SVCONTROL while emissions from curing/drying ovens were ducted directly to outside air. I observed the enclosure around the spray booth was enhanced to improve capture.

EUHANDSPRAY refers to manual spray Booth 1. During inspection, I observed filters in place. Booth emissions were ducted to SVCONTROL. For Booth 1, coated metal bolts got rolled out into any of 4 independent natural gas fired curing ovens located across from the booths for drying. The oven emissions were uncontrolled.

Booth 3, located beside Booth 1, has been deactivated and now only utilized to house one small dip tank exempt from permit to install requirements per R 336.1290. This was also removed from EUHANDSPRAY. Parts coated from the dip tank are also dried from any of the 4 ovens. During inspection, the dip tank was not in use.

EURONCI is a medium size dip tank coating process. The dip tank had a hood and the emissions are ducted to SVCONTROL. Coated parts are either hanged or spread in a tray in an open area beside the equipment and rolled over for drying to any of the 4 ovens being shared by Booth 1 and the Rule 290 dip tanks. Flash off area is the building. During inspection, this process was not operating.

EUTUMBLER refers to several coating equipment (5 units) at the rear of the facility that looked like small cement mixers. Utilized mostly for water based coatings in the past, the equipment pertaining to this emission unit were removed from the facility.

EUGRITBLAST refers to 2 grit blast equipment and located in a room near EU TUMBLER. These equipment were not operating during the inspection.

EUBOWLBLAST refers to shot blast equipment in the Grit Blast room and was not operating during the inspection.

EUPHOSPHATE refers to metal surface cleaning and phosphate line beside EU DUAL24. It

was not operating during the inspection.

FGVOCS refers to 5 emission units; EUDUAL 24, EUROBOT, EURONCI, EUHANDSPRAY, AND EUTUMBLER, that duct the VOC emissions into the control equipment. The control equipment consists of a zeolite concentrator followed by a catalytic oxidizer. As mentioned above, a couple of testing were conducted before April 2012 to verify compliance with capture and destruction efficiency per PTI No. 43-99C at that time which resulted in a revised PTI No. 43-99D.

FGFACILITY is a flexible group pertaining to the individual HAP and combined HAPs

enforceable restrictions to enable the facility to opt out of the ROP program as discussed above.

Regarding compliance with Permit to Install (PTI) No. 43-99D, special conditions, the facility kept and submitted recordkeeping requirements. Per PTI No. 43-99D, special condition FGVOCS(III)(1), a malfunction abatement plan was submitted to AQD for implementation during a malfunction episode.

During this inspection, I noted the following temperatures:

Location	Temperature, °F
Catalyst Inlet	700
Catalyst Outlet	709
Heat Exchanger Inlet	595
Heat Exchanger Outlet	398

The catalyst bed inlet temperature was above the minimum temperature requirement of 550°F per PTI No. 43-99D, special condition FGVOCS(IV)(3). I did not observe any strong solvent odors while inside and outside the facility area at the time of the inspection. This was an indication that there were no leaks in the ductwork system. This was also an indication that fugitive VOC emissions are properly controlled. Per PTI No. 43-99D, special condition FGVOCS(VI)(4), the facility utilized a rotary chart recorder to monitor the inlet and outlet catalyst bed temperatures.

I requested for an electronic copy of the coating use records. I also obtained a copy of the RCO and Burnoff Oven temperature chart recorder. Per PTI No. 43-99D, special condition FGVOCS(I)(1), the FGFACILITY highest monthly total VOC emissions based on 12 month rolling time period for FY2015 as reported in January 2015 were 11.8 tons and less than the 90 tons/year permit limit. Per PTI No. 43-99D, special condition FGVOCS(I)(2), the highest monthly VOC emission rate was reported in August 2015 at 1.03 tons/month. This equated to 8.58 lb/day (12 hours/day and 20 days/month operating scenario) and less than the 1080 lb./day permit limit.

Per PTI No. 43-99D, special condition FGFACILITY(I)(2), records showed Toluene was the highest emitting HAP for FY 2015. The monthly 12 month rolling individual HAP total emission rate for Toluene was highest in March 2015 at 1,591.22 lb. or 0.795 TPY and less than the 9 TPY permit limit. Per PTI No. 43-99D, special condition FGFACILITY(I)(3), the highest aggregate HAPs emission rates based on monthly 12 month rolling total were 2.62 TPY and recorded for January 2015 and less than the permit limit of 22.5 TPY.

Permit to Install No. 163-13 was issued for a natural gas fired burn-off oven to burn off solid residual coatings in metal racks. During the inspection, this equipment was installed but not operating. I obtained a copy of a representative temperature chart recorder dated 12/08/2015 and the afterburner temperature showed above 1400°F per PTI No. 163-13 special condition 1.6. I will conduct a follow-up inspection when the Burnoff oven is operating to observe compliance with process/equipment parameters. Per PTI No. 163-13 special condition 1.9, a rotary chart recorder monitors the temperature continuously.

Overall, I did not find any compliance issues during the inspection.

NAME *A. M. J.* DATE *1/27/2016* SUPERVISOR *CJE*