

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

B601026337

<b>FACILITY:</b> ELECTROPLATING INDUSTRIES, INC		<b>SRN / ID:</b> B6010
<b>LOCATION:</b> 21410 CARLO DRIVE, CLINTON TWP		<b>DISTRICT:</b> Southeast Michigan
<b>CITY:</b> CLINTON TWP		<b>COUNTY:</b> MACOMB
<b>CONTACT:</b> Colleen Klein , Office Manager		<b>ACTIVITY DATE:</b> 08/08/2014
<b>STAFF:</b> Rebecca Loftus	<b>COMPLIANCE STATUS:</b> Compliance	<b>SOURCE CLASS:</b> SM OPT OUT
<b>SUBJECT:</b>		
<b>RESOLVED COMPLAINTS:</b>		

On April 23, 2012, I, Rebecca Loftus, Air Quality Division (AQD), conducted an unannounced inspection of Electro Plating Industries (EPI), Inc., SRN: B6010, located at 21410 Carlo Drive, Clinton Township, Michigan. The purpose of this inspection was to determine EPI'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 Permit to Install (PTI) No. 718-86B.

I arrived at the facility at 12:10pm and met with Ms. Colleen Klein, Office Manager. Ms. Klein explained that no new process equipment has been installed at EPI. EPI has six electroplating lines used to coat miscellaneous metal parts for the military and auto industry and is open Monday through Friday; 6:00am to 2:30pm and sometimes runs a second shift from 2:30-12:00am depending on work orders.

PTI No. 718-86B

PTI No. 718-86B was issued for the operation of the following processes:

- Line 1: Alkaline Zinc Barrel System
- Line 2: Cyanide Copper Line
- Line 3: Chloride Zinc Line
- Line 4: Rack Zinc Phosphate Line
- Line 5: Alodine Process Line
- Line 6: Rack Alkaline Zinc Line

During the inspection, I observed each line. Each line has a series of dip tanks which contain materials specific to each individual process. See the attached plant layout for details of each coating line. Ms. Klein explained that after parts are treated they are air dried or dried in a spin dryer.

PTI No. 718-86B has five special conditions that apply to the six plating lines:

13. VOC emissions shall not exceed 2.7 pounds per hr nor 6 Tons per year
14. TAC limits (see permit for specific contaminants of concern)
15. HAP emissions shall be less than 9 tons per year for individual HAPs and less than 22.5 tons per year for aggregate HAPs.
16. Testing of VOC, TAC, and or HAP emission rates may be required...
17. Monthly record keeping and calculations for pounds of VOC emitted per day.

EPI reported the following emissions in MAERS for 2013:

Line #	PM (lbs)	VOC (lbs)
1	119.1	150.2
2	84.7	211.3
3	113.1	312
4	76	316.1
5	18.3	97
6	223.8	1218.5
Wastewater Treatment	37.9	---
<b>Facility Total</b>	<b>672.9</b>	<b>2305.1</b>

Based on the 2013 MAERS submittal, EPI appears to be meeting the emission limits established in their PTI.

Ms. Klein explained that record keeping is based on quarterly inventory and emission factors established by EPI's consultant. Although the permit requires monthly record keeping, the AQD recognizes yearly/quarterly records show compliance with the emission limits establish in the permit.

Other Processes

All process water is treated on-site, tested for metals and pH, and then released to the City's sanitary sewer system (EPI has a permit from the City for this process). In this area EPI has two natural gas fired boilers; one replaced in 2001 and one in 2007, both have a heat input rating of 1,100,000 Btu. At this time the boilers are not subject to the New Source Performance Standards (NSPS) for small industrial/commercial/institutional steam generating units, Title 40 of the CFR, Part 60, Subpart Dc, and are exempt from obtaining a PTI pursuant to Rule 282(b)(i).

EPI offers a chromating coating process to its customers. The process utilizes materials that containing Trivalent and/or Hexavalent Chrome components. These materials are used in tanks located on lines 1, 3, 5, and 6. In 2012, Ms. Klein provided the MSDS for each material, the amount of material used, the tank number, and the tank dimensions (see documents attached to last inspection report). The chromating process is a conversion coating process, and not an electrical process like chromium electroplating or chromium anodizing processes. Currently, the chromating process does not appear to be subject to the National Emission Standards for Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks, Title 40 of the CFR, Part 63, Subpart N. Applicably of this regulation is found in section 63.340; Section 63.340(c) states that "... tanks that contain a chromium solution, but in which no electrolytic process occurs, are not subject to this part."

In the back of the building EPI has a natural gas oven used to heat treat some parts to remove absorbed hydrogen and prevent hydrogen embrittlement. The oven temperature is typically around 375°F to 400°F. The oven appears to be exempt from obtaining a PTI pursuant to Rule 282(a)(i).

Next to the oven, is a 12,000 gallon tank of hydrochloric acid (HCl). The HCl storage tank is located inside a secondary containment area and appears to be exempt from obtaining a PTI pursuant to Rule 284(h)(iv).

Additional Information

New homes are being built behind EPI and Ms. Klein is concerned about the odors/fumes from the supplier of the HCl. After filling EPI's tank, the supplier purges the truck's tank to release the built up pressure. Ms. Klein said this creates a cloud of unbearable acidic fumes. These mobile sources are not regulated by the AQD, but EPI can contact their supplier to find a solution to neutral the acid during the purge. One solution could be to have the supplier exhaust the purged tank into a water bath with a basic material (like calcium bicarbonate) to help neutralize the acidic fumes as they are purged from the tank.

Conclusion

Although EPI does not maintain monthly records, the yearly records show compliance with the permit limits. At this time, EPI appears to be in compliance with the Federal Clean Air Act, Michigan's Air Pollution Control Rules, and the emission limits established in PTI No. 718-86B.

NAME Rebecca Jofino

DATE 9/17/14

SUPERVISOR CJE