

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

P009750304

FACILITY: Endura Plating Technology		SRN / ID: P0097
LOCATION: 42268 Yearego Dr, STERLING HTS		DISTRICT: Southeast Michigan
CITY: STERLING HTS		COUNTY: MACOMB
CONTACT: Jim Preston , Director of Manufacturing		ACTIVITY DATE: 08/28/2019
STAFF: Kaitlyn Leffert	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: FY2019 Scheduled Inspection		
RESOLVED COMPLAINTS:		

On August 28th, 2019, I conducted a scheduled inspection of Endura Plating Technology (SRN P0097) and Endura Coating (MISC-1327), respectively located at 42268 and 42250 Yearego Drive, Sterling Heights. Endura Plating Technology is permitted to operate an electroless nickel plating operation, which is controlled by a packed bed wet scrubber system. Endura Coating is exempt from the requirement to obtain an air use permit. The purpose of the inspection was to determine compliance with the Federal Clean Air Act; Article II, Part 5, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451); the administrative rules; and Permit to Install Number 81-10.

I arrived at the site and was greeted by Jim Preston, Director Manufacturing/Manufacturing Engineering at Endura Coatings. Jim Preston led me through both facilities and provided the necessary records during the inspection.

Endura Coatings

Jim Preston first led me on a walk-through of the process in Endura Coating. The facility operates three Teflon coating booths, three curing ovens, and two burn-off ovens. The facility applies nonstick Teflon coatings to molds used to manufacture food containers, such as the ones used for frozen meals. All equipment at Endura Coatings was previously determined to be exempt from the requirement to have an air use permit.

Endura Coatings previously submitted a package to demonstrate that the coating line qualifies for exemption under Rule 287(c). During my inspection, I observed that the facility keeps records of each coating job, what was sprayed, how much was sprayed, and when the coating took place. I reviewed monthly coating records (attached), which indicate that the coating booths continue to use less than the 200 gallons allowed by Rule 278 (2)(c). Based on the records, the facility typically uses around 40-50 gallons of coating per month. Coating usage in August 2019 was 42.50 gallons.

During the inspection, Jim Preston noted that only one of the burn-off ovens is currently being used and is operated approximately one to two times per week. I was provided records of when the oven was used, what was processed in the oven, as well as calculations of toxics and PM emissions from the burn-off oven. The burn-off oven is exempt per Rule 290(2)(a)(ii) and (iii), which requires that emissions remain under 500 lbs/month. The monthly emission calculation summary (attached) appear to demonstrate that the burn-off oven continues to qualify for the exemption, as emissions are typically below 25 pounds per month. Additional review may be necessary to determine if this exemption continues to apply to the burn-off oven at Endura Coating.

Endura Coatings maintains records of the chamber and stack temperatures during oven use. I reviewed copies of the burn-off records and confirmed that the oven was regularly operated at temperatures above 1450°F. I also asked about calibration and maintenance of the burn-off oven. Mr. Preston explained that the oven is calibrated annually.

Endura Plating Technology

Following the inspection of Endura Coatings, Jim Preston led me over to Endura Plating Technology for a facility walk-through. Endura Plating Technology operates an electroless nickel plating line, which is used to coat disposable medical items used in surgeries. The electroless nickel plating line and associated wet bed scrubber were operating during my inspection. The facility has permitted emission limits for nickel and nitric acid from the coating line. Compliance with the emission limits is demonstrated through proper operation and maintenance of the packed bed scrubber system.

The electroless nickel plating line was operating on the day of my inspection. I observed the packed bed

scrubber system and confirmed that it was operating, based on the water spray against the glass. I noted that the scrubber was equipped with a liquid pressure gauge and pressure drop gauge, as is required by permit condition IV.2. At the time of my inspection, the liquid pressure gauge read 180 kPa and the pressure drop was 1 inch of water. Both of those values fall within acceptable operating conditions based on the Operation and Maintenance Plan that was submitted to EGLE in June 2010. The scrubber was also equipped with a pH monitor. The pH monitor screen did not actively have any read-out and I asked whether the monitor was still functioning. A worker explained that the screen is not working, but that the pH is still actively being monitored. He informed me that a signal light turns on if the pH falls outside of recommended conditions. I noted that the pH monitor should have a better readout, to more accurately track the scrubber operating parameters.

I asked about the daily checks of the scrubber, as is laid out in the Operation and Maintenance Plan submitted by the facility in 2010. I was told that there is not any record kept or specific protocol followed for daily checks, but that the operating parameters of the scrubber were checked regularly to ensure proper operation. I informed Mr. Preston that it would be more useful to have a checklist or other document near the scrubber, where staff can record scrubber operating parameters on a regular basis. Mr. Preston said that they will work on getting a protocol together for staff to follow.

I also inquired about quarterly maintenance check, as specified in the Operation and Maintenance Plan and in permit condition VI.1. Mr. Preston informed me that the last maintenance on the scrubber was around December of 2018. I reminded him that maintenance should be done more regularly and he said he will incorporate that into an updated maintenance plan for the scrubber.

While the scrubber appears to be operating properly and semi-regular inspection and maintenance is performed, Endura will work on improving their program for monitoring and maintaining the packed bed scrubber control system.

Follow-up

I called Mr. Preston on Friday, September 20th to follow-up and see if any progress had been made in tracking the scrubber operating parameters. Mr. Preston returned my call on September 21st to inform me that they had ordered a new pH meter and the chemistry needed to calibrate the pH meter to monitor the specific pH range suitable for the packed wet bed scrubber. He also said that they have started tracking parameters and data from that will be sent along once available.

Conclusion

During the inspection, I identified that monitoring of daily operating parameters at the scrubber was not being properly recorded. Follow-up conversations confirmed that the facility now has a system for tracking these parameters. Since the company has already taken corrective action, Endura Plating Technology appears to be in compliance with all conditions of PTI 81-10 and all applicable air quality rules and regulations.

At Endura Coatings, records review for the coating line indicates that this equipment continues to qualify for exemption under Rule 287(2)(c). Regarding the burn-off oven at this facility, the use of the Rule 290 exemption needs to be further evaluated. Toxic emissions from the burn-off oven will be further reviewed to determine if they continue to satisfy the Rule 290 exemption.

NAME



DATE

9/26/19

SUPERVISOR

SK