

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

B300056485

FACILITY: Beacon Park Finishing LLC		SRN / ID: B3000
LOCATION: 15765 STURGEON, ROSEVILLE		DISTRICT: Warren
CITY: ROSEVILLE		COUNTY: MACOMB
CONTACT: Papat Patel , Environmental Manager/Chemist		ACTIVITY DATE: 10/28/2020
STAFF: Joe Forth	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MINOR
SUBJECT: On-site Inspection		
RESOLVED COMPLAINTS:		

On October 28, 2020 and November 12, 2020, I, Joseph Forth, from the Department of Environment, Great Lakes and Energy (EGLE), Air Quality Division (AQD), conducted an inspection of Beacon Park Finishing, formerly Howard Finishing State Registration Number (SRN): B3000, located at 15765 Sturgeon, Roseville, MI. I was accompanied during the inspection by Roseville Fire Marshal William Ciner. The purpose of this inspection was to determine the facility's compliance with Permit to Install (PTI) No. 186-91B, 40 CFR Part 63, Subpart N, the National Emission Standards for Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks (Chrome NESHAP), the Federal Clean Air Act Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act of 1994, PA 451, as amended, and Michigan's Air Pollution Control Rules.

Facility Description

Beacon Park Finishing provides decorative chrome and other metal coatings onto metal parts for automotive assembly. The facility has a chrome plating line (Chrome Line I) that is no longer in use. The equipment is still on site in case the company decides to use it again, but it is not currently in production. The tank was last operated in June 2013 and was drained in January 2014. A nickel-chrome line (Chrome Line IV) with a soak tank, clean tank, spray wash, electrolytic clean, acid dip (10% sulfuric acid and 30% hydrochloric (HCl) acid), and nickel strike, followed by four nickel tanks (tanks 16, 17A, 17B, and 17C) and two chrome tanks (tanks 4A and 4B). Tank 4B is not being used currently. Two zinc lines with the same set-up: cleaning area, acid tank (5 gal of HCL per 1000 gal of water), zinc tank, rinse tanks, and then a drying area. The facility also has a nitric strip line that consists of a nitric strip tank and a rinse tank. Beacon Park employs about 82 employees and runs 24 hours a day Monday-Friday. The facility does not have any boilers, generators, or cold cleaners. In the permit the controls for the processes are labeled as controls A, B, C, and D. Control A is a wet scrubber/mist eliminator for the chromium line I. Control B is wet scrubber for HCL emissions from the zinc line. Control C is a wet scrubber for the nitric strip tank. Control D is a wet scrubber for the nickel-chrome line.

The facility treats their wastewater (from processes not utilizing chrome) by neutralizing the pH and is then released into City of Detroit water system.

AQD received a forwarded inspection of Beacon Park Finishing conducted by the City of Roseville and Department of Homeland Security Infrastructure Security Compliance Division. The City of Roseville Fire Marshal requested EGLE/AQD conduct an inspection of the facility due to apparent poor housekeeping.

During my inspection I confirmed that the facility was operating the chrome line while the scrubber unit was not functional. A violation notice (VN) will be issued.

I revisited the facility on November 12, 2020 and the scrubber appeared to be operational. The VN will still be issued for the period of approximately 3 weeks the facility was operating the chrome line without the scrubber. Scrubber pressures at the time of inspection were (all inches of water) OVR: 4.2 PC: 1.3 Stage 1: 1.5 Stage 2: 0.7. The ranges each stage should be within are as follows: OVR: 1.25-5.25 PC- 0.5-4.5 Stage 1: 1.25-3.0 Stage 2: 0.25-0.75.

I also witnessed a stalagmometer test during this visit. The surface tension of the chrome bath at the time of inspection was 37.6 dynes/cm.

Compliance

Records collected electronically and can be located in: [S:\Air Quality Division\STAFF\Joe Forth\B3000 Beacon Park FY21 Inspection](#)

PTI No. 186-91B Special Conditions

14. The total chromium emission from the decorative chromium electroplating process tanks, exhausted through a wet scrubber/mist eliminator, hereinafter "Control A", shall not exceed 0.007 micrograms per cubic meter, corrected to 70°F and 29.92 inches Hg. Chrome Line I is no longer in operation.
15. The total chromium emission from the nickel-chrome plating line including the decorative chromium tanks, exhausted through a wet scrubber, hereinafter, "Control D", shall not exceed 0.05 micrograms per cubic meter, corrected to 70°F and 29.92 inches Hg. Control D was not operating at the time of inspection, the pressure gauges for the scrubber read 0 inches of water for each stage. Beacon Park and Mr. Patel confirmed that the scrubber was not operational at the time of inspection. Records show that pressure readings were last recorded on October 8, 2020 for Control D. On December 3, 2020, I received an email from Mr. Patel that stated that during scrubber downtime, the chrome line was operating on 9th, 12th, 13th, 14th, 15th, 16th, 19th, 20th, 21st, 22nd, 26th, 27th of October 2020 with only one shift running. This is a violation of Special Condition (SC) 15. In addition, General Condition 9 requires the facility to provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of any air contaminant in excess of standards for more than two hours, as required in this rule, to the District Supervisor, Air Quality Division. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Beacon Park did not notify the Warren District Supervisor within two business days of the malfunction of Control D that resulted in an exceedance of the emission limit in SC 15.
16. The hydrogen chloride (HCl) emission from the zinc electroplating process, exhausted through a wet scrubber, hereinafter, "Control B", shall not exceed 0.8 milligrams per cubic meter, corrected to 70°F and 29.92 inches Hg. With proper maintenance and operation, as described in the operation and maintenance plan, of the control technology the emissions will comply with the permitted limit. Control B was being properly operated during the inspection. See SC 22 for details on proper operation of Control B.
17. The nitric acid emissions from the nitric acid strip tank exhausted through a wet scrubber, hereinafter "Control C", shall not exceed 32.4 milligrams per cubic meter, corrected to 70°F and 29.92 inches Hg. With proper maintenance and operation of the control technology the emissions will be under the permitted limit. Mr. Patel said they have not been operating the nitric line for about 6 months, tanks were empty during the inspection.
18. Visible emissions from the vented process tanks, including chromium line I, the new and existing zinc lines, and nickel-chrome plating line IV, shall not exceed 0% opacity. During the inspection, there appeared to be no visible emissions coming from any of the stacks.
19. Visible emissions from the nitric acid strip tank shall not exceed a 6-minute average of 20% opacity, except as specified in Rule 301(1)(a). I did not witness any visible emissions during my time at the facility.
20. Permittee shall not operate chromium line I unless Control A is installed and operating properly. Chrome line I is no longer in operation.
21. Permittee shall not operate nickel-chrome plating line IV unless Control D is installed and operating properly. Proper operation is described in the Operations & Maintenance Plan (O&M Plan) required in SC 25 and verified through recordkeeping required in the O & M Plan. Control D was not operating at the time of inspection, this a violation of this condition.
22. Permittee shall not operate the new zinc line or the existing zinc line unless Control B is installed and operating properly. Control B appears to be installed and operating properly. Flow gauge for Control B was 30 gallons per minute (gpm) at the time of inspection. Flow gauge must be within +/-2 gpm of 30 gpm.

23. Permittee shall not operate the nitric acid strip tank unless Control C is installed and operating properly. Control C nor the nitric line were operating at the time of inspection, process tanks were empty and flow gauge read 0 gpm.
24. Permittee shall equip and maintain Control A, Control B, Control C and Control D with liquid flow indication devices to maintain constant water flow to the controls. All controls were equipped with monitors.
25. Within 45 calendar days of issuance of PTI 186-91B, the permittee is required to prepare and submit an operation and maintenance plan (O&M Plan) for the equipment covered by the permit, including the start-up, shutdown, and malfunction plan of the control equipment and a standardized checklist to document the operation and maintenance of the controls which addresses a systematic procedure for identifying malfunctions. The O&M Plan was submitted on December 3, 2020. The plan does not include a standardized checklist, however, does require documentation of pressured drop readings. Mr. Patel submitted records showing that pressure readings were last recorded on October 8, 2020 for Control D. This indicates the control was not operating between Oct. 8 – Oct. 28 which is a violation of SC 21. Though not indicated in the O & M plan, the facility provided an inspection record for the Control D dated October 24, 2020. The record stated that every component of the scrubber was in good condition, and no maintenance was done or required. This was questioned by the AQD due to the scrubber being reportedly not operating between Oct. 8 and Oct. 28. Mr. Patel later stated that the inspection was incorrectly dated and was performed on October 28, 2020, after the scrubber was made operational. Failure to include the inspection checklist in the O & M plan and the lack of proper record keeping will also be noted in the violation notice.
26. The permittee shall maintain the surface tension of chromium line I (and nickel-chrome plating line IV, at less than 45 dynes per centimeter by adding a chemical fume suppressant with wetting agent to the tank. The new Chrome NESHAP limit for surface tension in chrome tanks is 40 dynes/cm as measured by a stalagmometer (40 CFR 63.343 (c)(5)(i)). The facility is aware of this change and has been maintaining a max of 40 dynes/cm in their nickel-chrome baths. 40 CFR 63.343(c)(5)(ii)(B) requires stalagmometer readings be taken every 40 hours of tank operation if no exceedance of the 40 dynes/cm occurred. Chrome bath 4B (part of Chrome Line IV) is no longer in use, stopped production in November 2017. Chrome line I is no longer in operation. Mr. Patel provided surface tension records for the nickel-chrome line electronically dating back to 2018. These records indicate the facility is taking stalagmometer readings every 24 hours of tank operation and no exceedances of 40 dynes/cm occurred. Highest reported surface tension was 40.0 dynes/cm. Surface tension on November 12, 2020 was 37.6 dynes/cm.
27. Permittee shall not operate chromium line I (non-operational) nor nickel-chromium line IV, unless all applicable provisions of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for chromium as specified in 40 CFR, Part 63, Subparts A and N are met. This includes the monitoring and recording of emissions, operating, and maintenance information. The NESHAP requires the use of at least one control method (scrubber, fume suppressant, foam blanket, etc). The facility submits ongoing compliance reports to AQD every 6 months. The reports show that fume suppressant is the chosen compliance option for chrome line IV. The provided surface tension records show that the facility is properly maintaining their fume suppressant control method. Despite the scrubber for the chrome line being non-operational, for the NESHAP compliance, just one of the controls needs to be implemented and maintained. The facility appears to be compliant with their Chrome NESHAP requirements.
28. Permittee shall maintain records of inspections required to comply with applicable Work Practice Standards of 40 CFR 63.342 (f). Each inspection record shall identify the device inspected, the date, approximate time of inspection, and a brief description of the working condition of the device during the inspection. Permittee shall also record any actions taken to correct deficiencies found during the inspection. Mr. Patel provided records of the chrome tank operating times, the dates and times fume suppressant was added to the chrome tanks, and the bath components with the wetting agent clearly identified as required in 40 CFR 63.346(b).
29. Verification of total chromium emission rates from chromium line I and nickel-chrome plating line IV, by testing, at owner's expense, in accordance with Department requirements, may be required. According to the chrome NESHAP, it is not required to perform emissions testing if the facility uses wetting agents and meet the surface tension requirements. AQD has not requested verification of total chromium emissions.

30. Verification of nitric acid and HCl emission rates from the nitric acid strip tank exhausted through Control C and the new zinc line exhausted through Control B respectively, by testing, at owner's expense, in accordance with Department requirements, may be required. Verification of the emissions rates for nitric acid and HCL has not been requested by the department. AQD has not requested verification of acid emission rates.
31. The exhaust gases from the equipment listed in the table below shall be discharged unobstructed vertically upwards to the ambient air from stacks with maximum dimensions and at exit points not less than those described in the table.

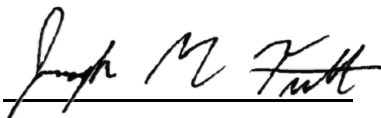
Equipment	Maximum Dimensions	Exit Point
chromium line I/Control A	16.8 inches in diameter	23.2 feet above ground
nickel-chrome plating line IV/Control D	36.0 inches in diameter	38.0 feet above ground
new & existing zinc lines/Control B	41.0 inches in diameter	32.0 feet above ground
nitric strip tank/Control C	14.0 inches by 16.0 inches	36.0 feet above ground

Stack parameters not confirmed at this inspection, however the exhaust stacks appeared to be unobstructed.

Conclusion

The facility appears to not be in compliance with permit No. 186-91B, Special Conditions 15, 21, 25 and General Condition 9. The operation of the chrome line without the wet scrubber control in operation. A violation notice will be issued for the stated conditions.

NAME


DATE 01/06/2021

SUPERVISOR

