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

B300045982

FACILITY: Beacon Park Finishing LLC		SRN / ID: B3000
LOCATION: 15765 STURGEON, ROSEVILLE		DISTRICT: Southeast Michigan
CITY: ROSEVILLE		COUNTY: MACOMB
CONTACT: Popat Patel , Environmental Manager/Chemist		ACTIVITY DATE: 07/20/2018
STAFF: Joe Forth	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: On-site inspection.		
RESOLVED COMPLAINTS:		

On July 20, 2018, I, Joe Forth, from the Department of Environmental Quality's (DEQ), Air Quality Division (AQD), conducted an inspection of Howard Finishing, now Beacon Park Finishing, State Registration Number (SRN): B3000, located at 15765 Sturgeon, Roseville, MI. 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. 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 waste water (from processes not utilizing chrome) by neutralizing the pH and is then released into City of Detroit water system. The facility's hazardous waste taken for disposal by HM Environmental Services, Inc. (See Attachment A)

Facility Inspection

I arrived at the facility at 10:30 am. I was met by Environmental Manager Popat Patel. I provided my credentials and stated the purpose for the inspection. I sat down with Mr. Patel and discussed which records I would like to review. Mr. Patel was able to produce all requested records on site, and also provided an excel file containing the monitoring data for the scrubber. I inquired whether the facility was currently or had ever used PFOS containing fume suppressants. Mr. Patel said that they did once use PFOS containing Macuplex STR but have not used it since Late 2015. Currently Beacon Park Finishing uses Macuplex STR NPFX which does not contain PFOS.

After reviewing records, Mr. Patel took me on a tour of the facility. I was shown the plating lines and their corresponding monitoring devices. The pressure magnehelics were not showing any reading. Mr. Patel got someone from Maintenance Department to check on the issue and there was a piece of the electrical system that was preventing a closed circuit to power the pressure monitors. The maintenance worker able to create a temporary bridge for me to take a reading during the inspection and said that he would have to order the part to permanently fix the monitor. According to Beacon Park Finishing's Operation and Maintenance Plan (OMP), updated 7/27/2012, static pressure drops through the CMP should be between 0.5 and 1.5" in the pre-controller; between 1.25 and 3.0" in stage one; and between 0.25 and 0.75 in stage two. Overall static pressure should be below 5.25". At the time of inspection, the pressure drops were 5" for Overall, 2.2" for the Pre-Controller, 2.3" for Stage 1, and 0.3" for Stage 2. The pre-controller was above the level it is supposed to be. I instructed Mr. Patel practice proper maintenance,

be that by performing an additional wash down or some other means. Staff used discretion to not issue a violation notice for this exceedance as all the other values were within the determined ranges and instructed that the facility perform an additional wash down to bring the specific value into the acceptable range.

Mr. Patel then showed me the flow gauges for controls B and C The flow gauges for the control B and C also were not operational at the time of inspection. Mr. Patel stated that he had taken readings the day before my inspection and that they were working. Mr. Patel said he would replace them as soon as possible.

I left the facility at 12:45 pm.

Mr. Patel replaced the flow gauges within a week and sent pictures to the AQD showing that both were operating at 30 gph. I returned the facility on 8/24/18 to see if the pressure monitors for the chrome CMP were repaired and operational. The pressure monitor appeared to be working properly at the time of my visit. Due to the facility's quick response and remedy to the issues detected at the last inspection no violation notice is necessary.

Compliance

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. 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.

16. The hydrogen chloride (HCl) emissions 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 describe in the operation and maintenance plan, of the control technology the emissions will comply with the permitted limit.

17. The nitric acid emission 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.

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 notice 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. Control D appears to be installed and operating properly.

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.

23. Permittee shall not operate the nitric acid strip tank unless Control C is installed and operating properly. Control C appears to be installed and operating properly.

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. While the controls were equipped with flow monitors, the two for the zinc and nitric scrubbers had broken the night before. Mr. Patel was quick to get the monitors replaced and sent photos confirming they were operational.

25. Within 45 calendar days of issuance of this permit, applicant shall prepare and submit an operation and maintenance plan (OMP) for the equipment covered by this permit to install, including the start-up, shutdown, and malfunction plan of the control equipment. The OMP was submitted and meets all requirements. A copy of the facility's OMP is in the facility file.

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 NESHAP limit for surface tension in chrome tanks is 40 dynes/cm. The facility is aware of this change and has been maintaining a max of 40 dynes/cm in their nickel-chrome baths. Chrome bath 4B (part of Chrome Line IV) is no longer in use, stopped production in November 2017 (See Attachments B and C). Chrome line I is no longer in operation.

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 facility appears to be compliant with their NESHAP requirements. Both their surface tension and operation and maintenance of the scrubber appear to be within compliance. Contingent to proper operation and maintenance of the controls, the emissions of the chrome processes will not exceed the limit. The facility also submits ongoing compliance reports to AQD every 6 months. (See Attachment D)

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. Records were confirmed but not collected.

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 be operating in compliance with permit No. 186-91B, the Federal Clean Air Act; Article II, Part 55, Air Pollution Control of Natural Resources and Environmental Protection Act, 1994 Public Act 451, 40 CFR 63, Subpart N- National Emission Standards for Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks.

NAME Joel M Favor DATE 9-17-18 SUPERVISOR SK