

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

B300069873

FACILITY: Beacon Park Finishing LLC		SRN / ID: B3000
LOCATION: 15765 STURGEON, ROSEVILLE		DISTRICT: Warren
CITY: ROSEVILLE		COUNTY: MACOMB
CONTACT: Garrett Kanehann , Owner/CEO		ACTIVITY DATE: 10/03/2023
STAFF: Adam Bogнар	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MINOR
SUBJECT: Scheduled Inspection		
RESOLVED COMPLAINTS:		

On Tuesday, October 3, 2023, Michigan Department of Environment, Great Lakes, and Energy-Air Quality Division (EGLE-AQD) staff, I, Adam Bogнар, conducted an unannounced targeted inspection of Beacon Park Finishing LLC (the "Facility") located at 15765 Sturgeon, Roseville, MI. The purpose of this inspection was to determine the facility's compliance status with the Federal Clean Air Act; Article II, Part 55, Air Pollution Control of Natural Resources and Environmental Protection Act, 1994 Public Act 451; Michigan Department of Environment, Great Lakes, and Energy-Air Quality Division (EGLE-AQD) rules; 40 CFR Part 63, Subpart N, National emission Standards for Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks (Chrome NESHAP); and Permit to Install No. 186-91D.

I arrived at Beacon Park Finishing at 9:30 am. I knocked and pinged the doorbell at the lobby/office area, nobody answered. I walked behind the facility and looked at the composite mesh pad scrubber system (Control D) used to control emissions from the nickel/chrome plating line. I noticed that this scrubber system was in the same condition as during my last visit to the facility in June 2023. Two of the three filters were in place, but not bolted onto the unit. I called Popat Patel (Chemist), who is generally my main contact at the facility. Popat answered the phone and met with me outside. Ramon Bosques also joined Popat and I for most of the inspection. I stated the purpose of the inspection. Ramone and Popat showed me around the facility.

In January 2021, April 2022, April 2023, and now in November 2023, a violation notice was issued to Beacon Park Finishing for failure to operate the composite mesh pad scrubber, Control D, while operating the nickel-chrome plating line. This is an ongoing issue at this facility. Due to the facility's non-compliance with control device requirements, the conditions of Permit to Install (PTI) Number 186-91D, and the National Emission Standards for Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks , EGLE has commenced escalated enforcement actions against Beacon Park Finishing.

After my inspection in June 2023, I requested that Beacon Park Finishing contact their scrubber manufacturer, Vanaire, to come out to the site and evaluate the condition of their composite mesh pad scrubber, Control D. I requested that the facility inform me of the date Vanaire will come out to the site so that I can speak with the Vanaire representative. Justin Moore, Maintenance, informed me that Vanaire is coming to the site on July 27, 2023 at 10 am; however, on July 26, 2023 I received a call from the Vanaire representative stating that his flight got in early so he went to Beacon Park Finishing a day early and looked at the scrubber. I was not able to meet with the Vanaire representative. The Vanaire representative stated that the scrubber is missing the pre-filter section. The pre-filter section will have to be ordered from Vanaire.

During this inspection, Ramon stated that some of the water spray piping is not functional. The unit is equipped with water sprays that can achieve in-place cleaning of the filters periodically. According to Ramon (who spoke with the Vanaire Representative), the scrubber can be operated with or without the water sprays. Without the water sprays, the filters must be manually cleaned more often. With the water sprays, the facility needs to ensure the effluent is piped to the on-site wastewater treatment system.

I asked Ramon if the composite mesh pad scrubber had been repaired. Ramon stated that no repairs have been made to the scrubber since Vanaire visited the facility in July 2023. I asked Ramon for evidence that Vanaire had come out to the facility. Ramon provided me with a quote from Vanaire for the pre-filter section of the scrubber. Vanaire quoted the facility \$10,114 for three "Pre-Control Stage 1 Mesh Pads for a 32,250 CFM Scrubber 136" x 64" inlet transition pad opening. PP Pads with PVC Cartridges required & included". Delivery times were estimated at 11-13 weeks after approval of drawings. Drawing time was estimated at 2-3 weeks after receipt of down payment.

Ramon was not sure if the pre-filter section had been ordered from Vanaire. I emailed Garrett Kanehann, Owner, after my inspection and asked him when the facility is expecting delivery of the pre-filter section. Garrett stated that he called Vanaire on 10/5/2023 and was quoted at 2-3 weeks for delivery of the pre-filter section.

Vanaire also provided the facility with a spool of thread to sew the composite mesh pad filters into the cartridges. Ramon stated that the Vanaire representative trained Ramon and Popat on how to sew the filters into the cartridges.

Facility Inspection

Beacon Park Finishing performs finishing operations on metal parts. They perform decorative nickel/chrome plating on the front tow loop for the Ford F150. This is currently the only work they are contracted to do. They also have an operational Zinc plating line, but Beacon Park Finishing is not currently contracted to do any zinc plating. Ramon stated during an inspection on April 12, 2023 that the facility may try and sell off the zinc plating equipment.

Previously, the facility operated a nitric acid stripping tank. This was removed from the PTI in the latest permit modification of PTI 186-91D issued on February 15, 2023. I verified that this equipment has been dismantled. The tank is still on-site, but the tank is not filled and some of the associated equipment has been dismantled.

Currently, processes at this facility include decorative chrome plating, nickel plating, chrome stripping, and grinding/polishing operations. Metal plating is achieved by dipping racks of metal parts into a series of chemical & electrochemical tanks which modify the surface of the metal parts. Part racks are conveyed in and out of each plating/wash tank via an overhead hoist system.

Based on my observations, there might be 5-10 full time employees. Ramon stated that work has been intermittent. Workers do not know until the last-minute which days they will be called into work or if they will be told not to work that day. Based on the surface tension records I reviewed

since my last inspection in March 2023, the facility is operating 2-3 days per week, generally Tuesday through Thursday. The facility's operating hours have decreased significantly over the past 8 years. In 2015, an AQD inspector noted that there were 100 employees operating this plant 24 hours a day for 5 days a week. Garrett Kanehann purchased this facility on 10/04/2017 based on the Licensing and Regulatory Affairs (LARA) filings I reviewed.

Josh Bush, President, resigned from Beacon Park Finishing in June 2023. I have not heard if a replacement has been hired. Justin Moore, Maintenance, resigned from Beacon Park Finishing in August 2023.

The chrome/nickel line consists of a soak tank, alkaline cleaning tank, electrolytic cleaning tank, acid dip tank (30-40% hydrochloric acid), nickel strike tank, two nickel tanks (bright and semi-bright), two chrome tanks (only 1 of which is permitted and operational), and several aqueous wash tanks. I observed that only one chrome tank was filled during this inspection. The chrome tank (decorative) and the nickel strike tank are vented to a composite mesh pad (CMP) scrubber (Control D) which is not currently operating. This process was not being operated during this inspection. The facility was performing chrome stripping during my inspection. Chrome stripping is done to remove the chrome finish from parts where the finish did not meet the required specifications from Ford.

Surface tension in the chrome tank is reduced through periodic additions of a wetting agent. Beacon Park Finishing switched to a non-PFOS based wetting agent shortly before the Chrome NESHAP rules changed to not allow PFOS based wetting agents. Popat explained that, despite having moved away from the PFOS based wetting agent, significant amounts of PFOS remained in the plating tanks. This PFOS could not be treated with their standard wastewater treatment process.

The current wetting agent used is Ankor LF-19. The main active ingredient in Ankor LF-19 is polyfluorosulfonic acid (PFSA). Although this compound is not a "PFOS-based fume suppressant", PFSA belongs to the family of perfluorinated and polyfluorinated alkyl compounds (PFAS).

Beacon Park Finishing must comply with chromium emission limits from both the chrome NESHAP and from EGLE Rules 224/225 (health-based screening levels). The facility complies with the chromium emission limits in the Chrome NESHAP through maintaining surface tension in the chrome tank below 40 dynes/cm². According to the permit evaluation from PTI No. 186-91B, the facility must comply with the chromium emission limits from Rule 224/225 by both maintaining the surface tension below 40 dynes/cm² and operating the composite mesh pad scrubber system.

The zinc electroplating line consists of a soak tank, alkaline cleaning tank, acid tank (30-40% HCl), 2 zinc electroplating tanks, and several aqueous wash tanks. The HCl tank was previously permitted to be controlled by a wet scrubber (Control B). During an inspection in March 2022, I noted that the Control B wet scrubber (required by PTI at that time) had been removed from the roof and the HCl tank was being operated without ventilation. This was due to the roof being replaced sometime between March 2020 and March 2021. Beacon Park Finishing was issued a violation notice for operating the HCl tank without operating the wet scrubber. To address the violation,

Beacon Park Finishing modified their permit to install to remove the wet scrubber from the process. The HCl tank is now exhausted to the general in-plant environment.

Decorative chrome "Line 1" and associated "Control A" wet scrubber are no longer in operation. According to Papat, this chrome line was last operated on June 13, 2013 and was drained on January 21, 2014. The first MAERS report submitted by the facility was for the year 2015. According to that report and all MAERS reports since then, this line has not been operated. I verified that each tank in this plating line was drained. I didn't see any evidence that this line was recently used. The area around this line is now used for storage.

Permit to Install No. 186-91D

EUZINC

EU Zinc consists of a zinc plating line with no control. The only condition in this emission unit table requires the facility to exhaust this line to the in-plant environment. I did not observe that any of the zinc plating line tanks were exhausted out of the building. This line was not operating during this inspection.

FGLINEIV

FGLINEIV consists of all tanks in the nickel-chrome plating line. The nickel strike tank and the chrome plating tank are permitted to be controlled by a composite mesh pad scrubber – Control D.

Section I – Special Condition 1: Places a limit on chromium emissions of 0.05 micrograms per dry standard cubic meter. Compliance with this emission limit is demonstrated through proper operation of the chrome emission controls. The chrome scrubber has not been operated for some unspecified period (at a minimum since my March 16, 2023 inspection).

PTI No. 186-91D states that compliance with this condition is demonstrated through stack testing. No stack testing has been conducted at this time. AQD will request this stack testing be completed after Control D is repaired. This emission limit was established during the permit evaluation for PTI 186-91B. This evaluation states that maintaining surface tension below 40 dynes/cm² and proper operation of the composite mesh pad scrubber are both needed to meet this emission limit.

Beacon Park Finishing was issued a violation notice for exceeding this emission limit.

Section I – Special Condition 2: States that there shall be no visible emissions from FGLINEIV. I didn't notice any visible emissions while looking at the stack for FGLINEIV. The plating line was not operating during my inspection.

Section III – Special Condition 1: States that the permittee shall implement and maintain an approvable operation and maintenance plan. The facility maintains the operation and maintenance plan document on-site and has submitted this plan to AQD. While the submitted plan was considered approvable, it has not been implemented based on my observations during this inspection and several previous inspections. The chrome scrubber malfunctioned and Beacon Park Finishing has not fixed the scrubber in a timely manner. A main component of the operation and

maintenance plan is the development of a systematic procedure for identifying malfunctions and implementing corrective actions to address such malfunctions. The plan states that Beacon Park Finishing will check that pressure drops across each of the three composite mesh pad filters are in correct range, and, if pressure drops are found to be out of range, the supervisor and maintenance department shall be notified immediately and all plating operations shall be ceased. Popat stated that since the scrubber is not functioning, nobody has been checking the pressure drops across the filters. Based on the surface tension reading records provided to me by Popat, this process has been operated for approximately 2-3 days per week since January 1, 2023.

If the scrubber is ever restored to working order, the plan may need to be updated to include more stringent conditions for identifying and fixing malfunctions. Based on the records I reviewed, surface tension records were maintained according to this plan. A violation notice was issued for failing to implement an approvable operation and maintenance plan.

Section III – Special Condition 2: States that the permittee shall not operate EUCHROME1 unless the chemical fume suppressant containing a wetting agent is applied in quantities and at a frequency to ensure the surface tension of the chrome tank does not exceed 40 dynes/cm² when measured with a stalagmometer. Popat provided me with surface tension data for all of 2023. I reviewed surface tension data from March 2023 (date of last inspection) through September 2023. The facility reported that surface tension is maintained below 40 dynes/cm² during that period.

Section IV – Special Condition 1: States that the permittee shall not operate EUCHROME1 unless the composite mesh pad scrubber system is installed, maintained, and operated in a satisfactory manner. Based on my observations, statements from facility staff, and calls with the scrubber manufacturer, this scrubber is not functional. Based on the surface tension readings I reviewed during this inspection, the chrome tank was operated for approximately 2-3 days per week since January 1, 2023. AQD has cited Beacon Park for failing to operate this scrubber during four inspections since October 2020. A violation notice was sent to Beacon Park Finishing for failing to operate the composite mesh pad scrubber while operating the chrome/nickel plating line.

Section IV – Special Condition 2: States that the permittee shall not operate the nickel strike tank unless the composite mesh pad scrubber system is installed, maintained, and operated in a satisfactory manner. The composite mesh pad scrubber is not functional. Based on the surface tension readings I reviewed during this inspection, the nickel strike tank was operated for approximately 2-3 days per week since January 1, 2023. A violation notice was sent to Beacon Park Finishing for failing to operate the composite mesh pad scrubber while operating the nickel tank.

Section IV – Special Condition 3: States that the facility shall equip and maintain the composite mesh pad system with a differential pressure monitoring device. The composite mesh pad system is equipped with a differential pressure monitoring device. The Vanaire representative that came out to the site in July 2023 stated that the differential pressure monitoring device is in working order. No pressure drop readings have been recorded since my last inspection in March 2023 since the scrubber has been down for that period (and prior to that period).

Section V – Special Condition 1: States that upon request of the AQD District Supervisor, the permittee shall verify the total chromium emission rates from FGLINEIV, by testing at the owner's

expense, in accordance with 40 CFR Part 63 Subparts A and N. AQD has not requested this testing up until this point. Due to the repeated compliance issues with this process, the district supervisor is requesting that Beacon Park Finishing verify total chromium emissions from this process. Once the scrubber is determined to be in working order, AQD will work with the facility to schedule this testing.

Section VI – Special Condition 1: States that the permittee shall complete all required calculations in a format acceptable to the AQD district supervisor by the last day of the calendar month. I did not request any calculations during this inspection.

Section VI – Special Condition 2: States that Beacon Park Finishing shall monitor the surface tension of the chrome tank in a satisfactory manner and according to the schedule in the chrome NESHAP. I verified that surface tension is monitored and recorded according to the chrome NESHAP. Currently, surface tension is monitored every four hours of tank operation. There are two surface tension data points for days where the facility operated the lines for a full 8 hours.

Section VI – Special Condition 3: Specifies inspection requirements for the composite mesh pad scrubber. The pressure drop across the composite mesh pad system must be recorded daily. Pressure drop readings have not been taken since the scrubber has not operated during the period I evaluated (2023 year to date). A violation notice was sent to Beacon Park Finishing for failing to take and record daily pressure drop readings.

Beacon Park Finishing is required to visually inspect the composite mesh pad system, on a quarterly basis, to ensure there is proper drainage, no chromic acid build up on the pads, no evidence of chemical attack on the structural integrity of the control device, no breakthrough of chromic acid mist on the back portion of the pad closest to the fan, and no leaks in ductwork. Additionally, Beacon Park Finishing must perform wash-downs of the composite mesh pads in accordance with manufacturer's recommendations. These records have not been kept since March 2023. The scrubber has been out of operation since before that time. A violation notice was sent to Beacon Park Finishing for failing to perform these inspections and maintain these inspection records.

Section VI – Special Condition 4: States that the permittee shall keep records of the pressure drop across the composite mesh pad system on a daily basis. These records have not been kept since December 23, 2022. The pressure drop readings in the records kept prior to December 23, 2022 were out of the acceptable pressure drop ranges in many cases, yet nothing was done to remedy this. The scrubber has been out of operation since my last inspection. A violation notice was sent to Beacon Park Finishing for failing to keep these records.

Section VI – Special Condition 5: States that the permittee shall monitor emissions and operating and maintenance information in accordance with the chrome NESHAP. I verified that Beacon Park Finishing documented and maintained records of surface tension and fume suppressant additions since my previous inspection in March 2023.

Section VI – Special Condition 6: States that the 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. These are the inspections required by Section VI – Special Condition 3. A violation notice was sent to Beacon Park Finishing for failing to maintain records of these inspections.

Section VI – Special Condition 7: Requires Beacon Park Finishing to maintain records of the surface tension of the chrome tank, the amount of fume suppressant added to the chrome tank, and the date and time of each fume suppressant addition. I verified that these records are kept.

Section VIII – Special Condition 1: Requires that exhaust gases from the chrome stack be discharged unobstructed vertically upwards to the ambient air from a stack at least 38' high and 36" in diameter. I did not verify stack dimensions during this inspection. The stack appeared to be exhausted vertically and unobstructed to the ambient air.

Chrome NESHAP

The facility emailed me an ongoing compliance status report on October 3, 2023. The reporting period was from January 1, 2023 through June 30, 2023. This report was filled out showing the number of amp-hours the chrome tank operated. The report states that the operation and maintenance plan was not followed during the time period due to the malfunctioning nickel/chrome scrubber. The report contained a signature from the responsible official (Garrett Kanehann) at the bottom which certifies that the information in the report is accurate and true to the best of their knowledge. The company marked "Surface Tension using stigmometer" as the operating parameter monitored to demonstrate compliance.

Subpart WWWWWW

The zinc plating tanks, nickel plating tanks, and the nitric acid strip tank may be subject to 40 CFR Part 63 - National Emissions Standards for Hazardous Air Pollutants: Area Source Standards for Plating and Polishing Operations (NESHAP WWWWWW). The AQD has not accepted delegation to enforce 40 CFR Part 63 Subpart WWWWWW (6W) standards therefore compliance was not evaluated.

Bake Oven

There is one 250,000 BTU/hr natural gas fired bake oven used to relieve stress within metal parts before and after plating activities. Ramon stated during my previous inspection that this oven was recently purchased for a specific job, but they lost the job before the oven was needed. Based on my observations, this oven is exempt from permitting pursuant to Rule 282(2)(a)(i).

I did not notice any cold cleaners, boilers, or emergency generators on-site. Process tanks are heated electronically where necessary.

Grinding/Buffering Area

I did not visit this area during my inspection. During my previous inspection in June 2023, I observed that the ducting was removed from the buffering stations that were previously ducted through a cyclone dust collector to the ambient air outside the plant. All buffering stations were exhausted to the general in-plant environment. Most (if not all) of the buffering stations were controlled by fabric filters. Based on my observations during the June 2023 inspection, these

buffing stations are exempt from Rule 201 requirements pursuant to Rule 285(2)(l)(vi)(B). These grinding stations meet the requirements of the Chrome NESHAP since these operations are located in a separate room from the chrome plating operations.

Overall State of Facility

The interior of the plant is in disrepair. The conditions have not improved since my previous inspection. Electrical boxes are rusted out, uncapped wires are sticking out of places and on the ground, metal walkways are corroded, there are numerous chemical spills on the ground, much of the ground is covered in a thick waxy substance, hazardous materials are stored in an open air containment dyke, chrome tank samples are handled without gloves, the roof is leaking, one of the bay doors was hit by some equipment and was sealed with foam insulation, some of the doors to the facility are not lockable, staff turnover is unusually high, and staff are generally unaware of the highly toxic nature of the compounds they are working with and around.

Compliance Determination

Based on my findings during my inspection and record review, Beacon Park Finishing is not operating in 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); Michigan Department of Environment, Great Lakes, and Energy-Air Quality Division (EGLE-AQD) Administrative Rules; 40 CFR Part 63, Subpart N – Chrome NESHAP; and PTI No. 186-91D.

The violation notices issued in January 2021, April 2022, April 2023, and May 2023 have been referred to the AQD enforcement unit. In each of these violations, the facility was cited for operating the nickel-chrome plating line without the composite mesh pad scrubber installed. These violations have not been addressed based on the information I gathered during this inspection.

The violations regarding the zinc plating line were addressed through modifying their air permit. The violations regarding the grinding/buffing stations were addressed through exhausting these operations only to the general in-plant environment. The violations regarding the ongoing compliance status report were addressed through submitting an administratively complete ongoing compliance status report during this inspection. The violation issued for failing to take surface tension readings was addressed through the facility demonstrating that these readings were taken during this inspection.

The staff at this facility have continually demonstrated that they are not willing and/or able to properly maintain and operate their composite mesh pad scrubber system. Based on my observations during my inspection and record review, I believe Beacon Park Finishing poses a serious threat to the environment if they are allowed to continue operating in this manner. This inspection was AQD's fourth visit to Beacon Park Finishing in 2023.

A detailed list of each violation observed during this inspection is included in the notice of violation. The notice of violation can be viewed electronically at the address below:

<https://www.egle.state.mi.us/aps/downloads/SRN/B3000/>

NAME Adam Bogner

DATE 11/17/2023

SUPERVISOR K Kelly