

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

B565742298

FACILITY: FINI FINISH PRODUCTS INC		SRN / ID: B5657
LOCATION: 24657 MOUND ROAD, WARREN		DISTRICT: Southeast Michigan
CITY: WARREN		COUNTY: MACOMB
CONTACT: Frank Borawski , Vice President		ACTIVITY DATE: 11/06/2017
STAFF: Adam Bogнар	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: On-Site Inspection		
RESOLVED COMPLAINTS:		

On Monday, November 6, 2017, I conducted a targeted scheduled inspection of Fini Finish Products Inc., located at 24657 Mound Rd, Warren, MI. Accompanying me during the inspection were AQD staff Francis Lim and Joe Forth. 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 Environmental Quality, Air Quality Division (MDEQ-AQD) rules; Permit to Install Nos. 393-99A and 252-03; and 40 CFR Part 63 Subpart N – National Emissions Standards for Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks (Chrome NESHAP).

We arrived at Fini Finish at 9:00 am. Upon arrival, we met with Mr. Frank Borawski, Vice President. We identified ourselves, stated the purpose of the inspection, and provided him with the MDEQ-AQD "Entry for Inspections" Brochure.

During the pre-inspection meeting we discussed PTI's Nos. 393-99A and 252-03, as well as the previous inspection report to see if any changes have occurred. Mr. Borawski then gave us a tour of the facility. The company was not operating any process equipment during the inspection.

Fini Finish is a decorative chrome electroplating business. They also perform nickel and copper electroplating. The company operates Monday (7am-3pm), Tuesday through Thursday (6am-4am), and Friday (6am-3pm). There are approximately 13 employees. Fini Finish is considered a minor source for purposes of the Clean Air Act Title V Permit and an area source for Hazardous Air Pollutant (HAP) emissions.

The company plates and finishes customer supplied metal and plastic parts. Mr. Borawski explained that the company has been doing around 30% less chrome work and has been doing more nickel and brushed nickel finishes. The focus has also switched from motorcycle parts to sink fixtures.

In addition to this work, in 2012 the company purchased and installed a rapid prototyping machine (3D-Printer) that creates plastic prototype parts for customers. In this process, customers send Fini Finish a digital file containing a 3D computer model of a part. This file is then sent to the 3D printer which creates the plastic part in house. Finally, the newly printed part is plated, finished, and sent to the customer. The addition of the 3D printer has allowed Fini Finish to diversify their services and keep up to date with current technology.

Decorative Chrome Plating Tank (PTI No. 393-99A)

The company operates one decorative chrome tank with a holding capacity of roughly 847 gallons. Operation of the chrome tank began on July 10, 2001. Mr. Borawski believes the rectifier capacity is around 3000 amps. He explained that most parts are electroplated for around two minutes, which equates to an electrodeposit depth of 0.4012 microns. Mr. Borawski maintains Ongoing Annual Compliance Status Reports in accordance with the 40 CFR 63.347 (h)(1). I collected reports for the years 2015 and 2016 (Attachment #1). Mr. Borawski also maintains an Operation and Maintenance plan in accordance with 40 CFR 63.342 (f)(3). (Attachment #2).

A combination wetting agent and foam blanket is used as a fume suppressant to comply with 40 CFR 63.342 (d)(3). The fume suppressant is purchased as a five-gallon pail from Haviland under the name "Mist Eliminator PF Free". The SDS for this product is attached to this report (Attachment 6). It does not contain PFAS/PFOS based surfactants. Mr. Borawski explained that he switched to the "Mist Eliminator PF Free" approximately one year ago when he was no longer able to purchase the previous formulation from the supplier.

A hood above the chrome tank vents emissions through a packed bed wet scrubber located on the roof, then outside via stack. Mr. Borawski explained that the scrubber has not been in operation since 2008 due to the cost of operation. They comply with the emission control requirements of the permit and of the Chrome NESHAP by using the wetting agent type fume suppressant only.

Mr. Borawski demonstrated how he takes his stalagmometer readings. Mr. Borawski first checked that the device was calibrated by taking a reading with DI water. Once calibration was verified, Mr. Borawski took a measurement of his chrome tank solution. The measurement resulted in 114 drops which corresponds to a surface tension of approximately 31 Dynes. A detailed explanation of how the device is operated is included in the Operation and Maintenance plan (Attachment #2)

Special Condition #1: Since there have been no bath changes or instances of non-compliance, Mr. Borowski performs stalagmometer measurements on a weekly basis (40 hours of facility operating time). Measurements are also taken after wetting agent additions. Mr. Borowski provided the records of surface tension measurements for the past five years (Attachment #3). These records indicate compliance with the PTI and 40 CFR 63.342 (d)(3).

Special Condition #2: Mr. Borawski periodically adds fume suppressant to keep the surface tension under 40 dynes. Mr. Borawski provided the records of wetting agent addition for the past five years (Attachment #3).

Special Condition #3: The stack appeared to meet permit standards.

Special Condition #4: I did not observe signs of recent construction. Mr. Borawski is not aware of any changes in surrounding land use.

Special Condition #5: I collected a current version of the facilities operation & maintenance plan. The plan appears to be in compliance with 40 CFR, Part 63, Subparts A and N. (Attachment #2)

Electrolytic Strip Tank (PTI No. 252-03)

This tank is used for stripping chromium and nickel from plated parts. The plated part is placed in an aqueous bath containing sulfuric acid diluted to 20%. The electrolytic current is applied in the opposite direction than in electroplating which causes the metal plating to be stripped from the part into the bath solution. This tank has a rectifier capacity of 200 amps. The sulfuric acid is purchased at 93.1% concentration (SDS is attached to the report from the July 2, 2008 Inspection, located in the AQD file).

Special Condition 1.2: I did not observe signs of recent construction. Mr. Borawski is not aware of any changes in surrounding land use.

Special Condition 1.3a: The strip tank vents outside via stack. The stack appeared to meet permit requirements.

Other Metal Treatment Tanks

The company operates two electrolytic nickel tanks, three electrolytic acid copper tanks, one electrolytic cyanide copper tank, several cleaning tanks, and several rinse tanks. These tanks appear to be exempt from Rule 201 requirements pursuant to Rule 285 (2)(r). These tanks are vented to the general in-plant environment. A wetting agent is periodically added to the nickel tanks, but no measurements of surface tension are

recorded and no records are kept. I collected the SDS for the wetting agent used (Attachment 5). The nickel and copper tanks could potentially make the facility subject to 40 CFR Part 63 Subpart WWWW (6W). The AQD has not taken delegation of this standard. Mr. Borawski is aware that the facility is potentially subject to NESHAP WWWW and maintains Annual Compliance Certification Reports in accordance with NESHAP WWWW. Mr. Borawski provided me with the reports for the years 2015 and 2016. (Attachment #4)

Buffing & Polishing Equipment

The company operates eight buffing machines to buff parts before and after plating activities. They also operate one buffing/sanding machine. All buffing, sanding, and polishing emission units are vented to an appropriate particulate control system (fabric filter collector). These machines appear to be exempt from Rule 201 requirements pursuant to Rule 285 (2)(I)(vi).

The fabric filter collector, installed in 2010, is manufactured by ACT Dust Collectors. It is equipped with 16 filter cartridges. A digital pressure drop gauge indicates when the filters need to be changed (at 0.8). During the inspection Mr. Borawski briefly turned the system on to demonstrate that the dust collector was functioning. While operating, the pressure drop read 0.0. An air pulse is applied to the filters upon manual shut-down of the unit, which occurs twice per day. The dust is collected in two 55-gallon drums. During the warmer months the dust collector vents outside via stack, whereas during the colder months the dust collector vents inside the general in-plant environment to save heat.

Mr. Borawski explained that the dust collector filters caught fire in 2012. To prevent future fires, a spark box was installed preceding the dust collector to cool down particles before they reach the flammable filters. The filters were replaced after the fire. This was the only time these filters were changed since installation of the unit.

Sand Blast Unit

The facility operates one sand blast unit that exhausts through a cyclone and into the general in-plant environment. This unit appears to be exempt from Rule 201 requirements pursuant to Rule 285 (2)(I)(vi).

Surface Coating

Finis Finish has a small paint booth used to apply primer to plastic parts. The primer contains metallic silver to provide a conductive surface to the plastic for copper electroplating. The booth vents outside via stack. The booth is equipped with dry fabric filters. A pressure drop gauge indicates when the filters should be replaced. I did not inspect the pressure drop. The company provided me with their purchase records for 2016 and 2017 (Attachment #7). The 2017 records indicate that a total of three gallons of primer was purchased between February 2 and September 29. The company uses less than 200 gallons of coating per month. The booth appears to be exempt from Rule 201 requirements pursuant to Rule 287 (2)(c).

Miscellaneous

The 3D printing device is relatively small (a little larger than a washing machine) and is vented to the general in plant environment. Plastic 3D printing is essentially an extrusion and drying process. The unit appears to be exempt from Rule 201 requirements pursuant to Rule 286 (2)(a).

The company does not have any cold cleaners, boilers, or emergency generators.

I left the facility at 10:25 am.

Compliance Determination

Finis Finish Products Inc. appears to be in compliance with the federal Clean Air Act, Part 55, Air Pollution Control of the Natural Resources and Environmental Protection

Act, 1994 Public Act 451; Michigan Department of Environmental Quality, Air Quality Division (MDEQ-AQD) rules; Permit to Install Nos. 393-99A and 252-03; and the Chrome NESHAP (Subpart N).

NAME Adam Bergon

DATE 11/20/17

SUPERVISOR SK