

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

N652045380

FACILITY: ELECTRO CHEMICAL FINISHING		SRN / ID: N6520
LOCATION: 379 44TH ST SW, WYOMING		DISTRICT: Grand Rapids
CITY: WYOMING		COUNTY: KENT
CONTACT: Eric Vaughn ,		ACTIVITY DATE: 07/26/2018
STAFF: April Lazzaro	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MINOR
SUBJECT: Unannounced, scheduled inspection.		
RESOLVED COMPLAINTS:		

Staff, April Lazzaro conducted an unannounced, scheduled inspection. I had stopped at the Remico facility to meet with Eric Vaughn about that site, and then we both drove separately to the 44<sup>th</sup> Street facility. Once we arrived on-site we met with Kyle Thaxten who's just started doing the daily control device Operation and Maintenance inspections.

**FACILITY DESCRIPTION**

This facility is a miscellaneous parts plating facility that operates under Permit to Install 288-98. The equipment described in the application that are permitted are as follows: nine plating lines which include, one decorative hexavalent chrome plating tank subject to the Chrome Plating NESHAP, 40 CFR 63, Subpart N, nitric acid stripping tanks and other metals plating, a sludge dryer and a buffing operation. The permit covers emissions from wet scrubbers that are externally located that are referred to as the north and south scrubber as well as the small venturi scrubber on the sludge dryer. There used to be three scrubbers, but the middle scrubber was removed. I confirmed via e-mail with Mr. Vaughn that cyanide that used to vent through the middle scrubber is no longer used at the facility which is why the scrubber was removed. There still one tank with cyanide but it is not treated at the facility and is internally vented. Additionally, the safety data sheet for the chemical fume suppressant was requested and reviewed during the last inspection, and Mr. Vaughn confirmed it has not changed. It has been determined that it does not contain perfluorooctane sulfonic acid (PFOS) which is no longer allowed by the NESHAP. The last time PFOS was used was in 2015. The facility has discontinued using the trichloroethylene vapor degreaser that is subject to the Halogenated Solvent Degreaser NESHAP, 40 CFR 63 Subpart T. The unit is still located on-site, but it is empty, and the company plans to render it inoperable so that they do not have to continue reporting. Permit to Install (PTI) No. 288-98 covers the hexavalent chromium process plating tanks and scrubber, the nitric acid tanks and scrubber, and the cyanide tanks and scrubber. The cyanide process is no longer conducted and as such the scrubber was removed as further discussed below. The tanks located at this facility that are internally vented are exempt per Rule 285(2)(r).

**COMPLIANCE EVALUATION**

The Operations and Maintenance (O&M) Plan details the variables to be monitored and the acceptable parameters. We looked at the south scrubber monitoring system and recorded the data observed. The minimum acceptable water flow is 50 gallons per minute (gpm). The water flow at the time of the inspection was 63.4 gpm. Additionally, the low liquid level alarm was evaluated. They have replaced the probe style with a float style monitor because the probe would get covered with scale. The acceptable range for pressure drop of the scrubber is 0.5-4.5" water. The pressure drop at the time of the inspection was 0.6" water. This is within the acceptable range, but close to being too low and is exactly the same as last year's reading. A review of the daily scrubber inspection form requested showed that daily records are being adequately maintained. The data collected was within the parameters identified in the O&M Plan. The pH for the south scrubber system was at 6.18.

The north scrubber monitoring system acceptable water flow is a minimum 30 gpm. The water flow at the time of the inspection was 28.5-34 gpm. I was informed that the pump had been replaced two weeks ago. The flow on the scrubber was below the range considered normal. This unit has also been retrofit with a float style low liquid level alarm. The acceptable range for pressure drop of the scrubber is 0.25-4.25" water. The pressure drop at the time of the inspection was 1.8" water.

We went outside to conduct a visual inspection of the control devices. Visually, I did not detect any leaks of liquid or hear air flow leaks during the observations. However, looking into the north scrubber,

it was clear that one row of spray nozzles was partially plugged. This was determined by visually observing the spray patten of the other rows and comparing them. I called Kyle up to join me on the observation deck so that he could be properly educated as to what to look for in his inspections. The north scrubber is in violation of Rule 910 for improper operation of a control device. A Violation Notice will be sent.

I asked ECF staff why there is so much liquid on the floor of the facility below the grate, and I was told that there is drippage as a part is moved between two tanks, and the floor is sealed to contain any liquids.

Brandon Gottschling joined us when we came back in and we talked about the sludge dryer. It is a cake press with venturi control. This unit is down, and the sludge dryer is no longer in use. There are no plans to restart it at this time.

Records requested from Mr. Vaughn included the 2017 and 2018 Notification of Compliance Status (NOCS) which only has to be kept on site and provided upon request. They were provided and have been filed. I also asked for copies of the daily O&M Plan sheets for the month of June and February 2018 and from the last 2 quarterly inspections.

These were provided, and it was determined that the O&M Plan was for the majority of the time, appropriately followed, except for when the north scrubber fluctuated below the required 30 gpm as was observed during the inspection. The NOCS reports compliance with the surface tension limit and no exceedances during the time period reviewed. Records are attached. It does appear as though the current staff did not receive proper training on how to evaluate the O&M Plan requirements as indicated above. The facility technically demonstrates compliance with the Chrome NESHAP using the fume suppressant to meet the surface tension requirements, and as such there has been no apparent violation of the NESHAP from the scrubber issues.

PTI No. 288-98 contains emission limits for chromium, nitric acid and hydrogen chloride which can be confirmed via stack testing. At this time, stack testing is not being required. The permit contains operational requirements that the permittee shall not operate the process tanks unless each wet scrubber is installed and operating properly. As indicated above, the north scrubber was not operating properly at the time of the inspection and it will be included in the Violation Notice.

The SDS for the chrome plating tank surfactant was briefly discussed, and Brandon and Kyle confirmed it is the same as what AQD collected last year- Macuplex STR NPFx made by MacDermid. Last year, an in-depth review of this material was conducted. It was noted that in the hazardous ingredients section of the safety data sheet it lists "surfactant 5-15% as proprietary". MacDermid would not tell Electro Chemical Finishing staff what the proprietary ingredient is. AQD does not allow for the claim of proprietary when the chemical in question needs to be identified to determine compliance with the Clean Air Act and the Michigan Air Pollution Control Rules, however it can be kept confidential following receipt. It was determined to not be the specific CAS # for PFOS, and therefore NESHAP compliant.

#### CONCLUSION

The Electro Chemical Finishing 44<sup>th</sup> Street facility was in non-compliance with PTI No. 288-98 and Rule 910 at the time of the inspection.

NAME 

DATE 8-13-18

SUPERVISOR 