

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

N092344256

FACILITY: Ventra Ionia Main, LLC		SRN / ID: N0923
LOCATION: 14 N BEARDSLEY ROAD, IONIA		DISTRICT: Grand Rapids
CITY: IONIA		COUNTY: IONIA
CONTACT: Michael Sladewski, Environmental Manager		ACTIVITY DATE: 04/12/2018
STAFF: Kaitlyn DeVries	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MINOR
SUBJECT: The purpose of this inspection was to determine compliance with PTI No. 189-90F and other applicable air quality rules and regulations.		
RESOLVED COMPLAINTS:		

On Thursday April 12, 2018 Air Quality Division (AQD) staff Kaitlyn DeVries (KD) and Tyler Salamasick (TS) conducted an unannounced, scheduled inspection of Ventra Ionia Main, LLC located at 14 Beardsley St., Ionia Michigan. The purpose of this inspection was to determine compliance with PTI No. 189-90F and other applicable air quality rules and regulations.

Prior to entering the facility, staff surveyed the perimeter for any excess odors and opacity. None were noted. Upon arrival at the facility, staff met with Mr. Michael Sladewski, Environmental Manager, who accompanied staff on a tour of the facility.

Facility Description

Ventra Ionia Main, LLC (Ventra) is a chromium plating facility that plates both plastic and metal automotive parts. In addition to the plating process, the facility also has one (1) small water-based coating booth, and several welding, buffing, sanding, and stamping stations for processing of the parts. Ventra currently operates 2 – 3 shifts, 5 – 6 days per week. Both plating lines, as well as many of the presses and welding stations were in operation at the time of the inspection.

Regulatory Analysis

Ventra is a minor source for criterial pollutants and Hazardous Air Pollutants, currently holds one (1) permit, PTI No. 189-90F, and is also subject to the provisions of 40 CFR Part 63 Subpart N, the National Emissions Standard for Hazardous Air Pollutants (NESHAP) for chromium emissions from hard and decorative chromium electroplating and chromium anodizing tanks. Ventra is subject to the area source requirements of the NESHAP, and most of the requirements are written into the permit.

Compliance Evaluation

EUHCLSCRUB

This emission unit covers the hydrochloric acid scrubber system that controls four (4) tanks, M-7, M-10-M-11, and M-15. The facility conducts regular preventative maintenance (PM) on the units scrubber system, conducting semi-annual and annual PM's on the units as well as daily line check, including roof-top visual inspections. The most recent PM for the HCL scrubber system was conducted February 2018. Daily pressure drop readings for the scrubber indicate that it operates between 2.8 inches of water column (WC) and 3.2" WC. Additional comments about the pressure drop note that some maintenance is done on the unit when the pressure drop rises over the 3" mark. Roof-top observations of the unit did not indicate any operational issues with the unit. The stack dimensions, were not explicitly measured, but appeared to be correct.

EUCRETECH

This emission unit covers the chrome etch process (tank M-2) with associated 3-stage scrubber system for control. Staff was able to observe the scrubber from the roof-top and did not observe any operational issues. Regular PM's on the unit also indicate no issues with the system. The differential pressure is read daily, and records indicate the unit operates between 2.7 – 3.2" WC. The stack dimensions, were not explicitly measured, but appeared to be correct.

FGCRTANKS

This flexible group covers five (5) decorative chrome electroplating tanks that use three-stage scrubbers and fume suppressant for control and an evaporator used to recover chromic acid from the spent rinse water produced by the plastic parts plating line. The emission units within the flexible group are EUCRTANK1, for one (1) chrome tank and associated three stage scrubber with fume suppression, EUCRTANKS2, for two (2) chrome tanks and associated three stage scrubber with fume suppression, EUCRTANKS3, for two (2) chrome tanks with associated three stage scrubber and fume suppression, and EUEVAPORATOR, for an evaporator for the recovery of chromic acid from the spent rinse water from the plastic plating line tanks. EUCRTANK1 and EUEVAPORATOR exhaust out a common scrubber.

The tanks and the evaporator have total chromium emission limitations of 0.003 ponds per hour (pph) for EUCRTANKS2, 0.00014 pph for EUCRTANKS3, and 0.00014 pph for EUCRTANKS1 and EUEVAPORATOR. Stack testing for the three exhaust points was conducted in 2011 and showed emission results of 3.47×10^{-7} pph for EUCRTANKS2, 7.11×10^{-7} pph for EUCRTANKS2, and 3.89×10^{-7} pph for EUCRTANK1. Testing for the evaporator in conjunction with EUCRTANK1 was not conducted when the evaporator was installed because the emission limit set for EUCRTANK1, was calculated based upon the uncontrolled emission rate from EUCRTANK1, and with the already established scrubber control efficiency the total expected emission rate from the tank and the evaporator would not be exceeded, since the intent of the evaporator was to recover chromium prior to exhausting to the scrubber.

Ventra most recently submitted an operation and maintenance plan to AQD in January 2017. Similarly to the scrubber systems previously mentioned (EUHCLSCRUB and EUCRETHC), Ventra does regular PM on the scrubber systems, including quarterly and semi-annual maintenance. Records of maintenance is attached to this report.

As previously mentioned, both plating lines were in operation at the time of the inspection. Ventra has a surface tension maximum limit of 33 dynes/cm as measured by a stalagmometer. This is the same surface tension requirement for the NESHAP. On the day of the inspection, the surface tension for each of the five (5) tanks ranged from 26 dynes to 30 dynes, with the higher dyne readings on the plastic plating line. Per Mr. Sladewski, the surface tension readings are typically taken once per 12-hour shift when the process is operating. According to the attached records for surface tension and the amount of fume suppressant added, the surface tension for the tanks are at or below the maximum allowed 33 dynes/cm. However, there were four (4) instances on two (2) separate days (January 23, 2018 and February 7, 2018), where the surface tension of one of the tanks exceeded 33 dynes, with surface tension readings of 35, 36, 37, and 39. Per Mr. Saldewski, Ventra was actively plating on both of those days. The records associated with those instances also show that when the first high surface tension reading was detected, Ventra added larger amounts of fume suppressant, and re-checked the surface tension within minutes of the addition. The second reading was still high, so more fume suppressant was added, which then decreased the surface tension to below the allowed 33 dynes. However, PTI No. 189-90F and 40 CFR Part 63 Subpart N require the surface tension to be below 33 dynes, therefore this is a violation of PTI No. 189-90F FGCRANKS Special Condition III.3 and 40 CFR Part 63 Subpart N. A violation notice will be sent. Subsequently, Ventra should have returned to the required every 4-hour monitoring schedule of the surface tension measurements as required in 40 CFR Part 63 Subpart N 63.343(c)(5)(ii)(C), but there was not evidence of this in the records.

Mr. Sladewski noted that Ventra has since implemented a new procedure requiring immediate notification of key plant personnel and increased the sampling frequency when the surface tension is above 33 dynes.

All three (3) scrubbers are three (3) stage composite mesh pad scrubbers. At the time of the inspection the scrubber pressure drop readings were:

	SCB01	SCB02	SCB03
Stage 1	0.3	0.3	2.5
Stage 2	0.5	1.1	0.5
Stage 3	0.5	0.4	Negative reading
Overall	1.1	1.0	1.4

KD asked Mr. Sladewski why there was a negative reading for stage 3 or the third scrubber. Mr. Sladewski state that the scrubber could be in a "wash down" cycle. As the discussion continued, KD noticed that the magnehelic needle on the third stage would jump up, every so often, and the fist stage would decrease at the same time. It was determined that the scrubber was in a wash-down cycle. Based on the attached pressure drop records, the overall pressure drop for the scrubbers are consistent with what was observed during the inspection, with the exception of SCB03, which was lower than the records indicate, but was likely due to the wash down.

Roof-top observations of the scrubbers did not indicate any operational issues. Ventra conducts regular PM on the units. Records of the PM are attached to this report, and per Mr. Sladewski, there were no malfunctions of the scrubbers in the past year. The stack dimensions were not measured at this time but appeared to be of correct dimensions.

Ventra is required to comply with the area source provisions of 40 CFR Part 63 Subpart N, NESHAP for chromium emissions from hard and decorative chromium electroplating and chromium anodizing tanks. The 2017 compliance status report is attached, and had them readily available on-site, as required for area sources. The fume suppressant used by Ventra does not contain PFOS, as defined by the NESHAP. The facility uses two (2) fume suppressants, one for the plastic line and one for the metal line. The SDS's for each are attached to this report. Ventra is also properly tracking the total time plating, and for the past 12 months has plated a total of 4502 hours on the plastic line, and 4968 hours on the metal line.

Mr. Sladewski did state that Ventra has historically used PFOS (CAS # 1763-21-1) but stopped using this as part of the fume suppressant used in the tanks in 2011.

Miscellaneous exempt equipment

Ventra has one (1) water-based coating line and uses Rule 290 to show compliance. Currently, Ventra is tracking the amount of coating used in conjunction with the VOC content of the coating to calculate emissions. For the past 12-months, the highest monthly VOC emissions were 750 pounds, which is compliant with the Rule 290 limit of 1,000 pounds. Ventra should, however, be sure in the recordkeeping that all constituents of the coatings are accounted for. Additionally, KD did note some minor gapping in the fabric filter used inside the booth, KD pointed this out to Mr. Sladewski, who stated he would make sure that gets fixed appropriately.

There are two (2) steel stamping areas that have over 20 large presses. This process is exempt from Rule 201 permitting under Rule 285(2)(l)(i). There is also a large buffing/sanding area, and the buffing/sanding stations exhaust to five (5) baghouses. According to Mr. Sladewski, two (2) of the baghouses are approximately 36,000 CFM, and the other three (3) are 5,000 CFM. There are also welding stations with three (3) associated baghouses at approximately 18,600 CFM, 12,300 CFM, and 4,600 CFM. The welding baghouses are exhausted internally during the winter and externally during the summer. The plastic welding is exempt from Rule 201 permitting under Rule 286(2)(f). The metal welding is exempt from Rule 201 permitting under Rule 285(2)(i). The buffing and sanding is exempt from Rule 201 permitting under Rule 285(2)(l)(vi)(C).

Ventra also has an injection molding area. This process is exempt from Rule 201 permitting under Rule 286(2)(b).

Compliance Determination

Based upon the observations made during the inspection and a subsequent review of the records, it appears as if Ventra Ionia Main, LLC is not with PTI No. 189-90F and 40 CFR Part 63 Subpart N for chromium emissions from hard and decorative chromium electroplating and chromium anodizing tanks. Additionally, AQD will formally be requesting PTE calculations for PM, VOC, and HAP's from the facility to verify minor source status.

NAME Kaitlyn Duhio DATE 5/2/2018 SUPERVISOR [Signature]