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

N650945130

FACILITY: HYDRA LOCK CORP		SRN / ID: N6509
LOCATION: 25000 JOY BLVD, MOUNT CLEMENS		DISTRICT: Southeast Michigan
CITY: MOUNT CLEMENS		COUNTY: MACOMB
CONTACT: Don Harrison , Manufacturing Manager		ACTIVITY DATE: 06/06/2018
STAFF: Joe Forth	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: On site inspection.		
RESOLVED COMPLAINTS:		

On June 6, 2018, I, Joe Forth, from the Department of Environmental Quality's (DEQ), Air Quality Division (AQD), conducted an inspection of Hydra Lock Corporation, State Registration Number (SRN): N6509, located at 25000 Joy Blvd., Mt. Clemens, MI. The purpose of this inspection was to determine the facility's compliance with Permit to Install (PTI) No. 252-98, 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

Hydra Lock manufactures hydraulic arbors and chucks for the aerospace and medical industries. Hydraulic arbors and chucks hold equipment in place companies to work on it. Hydra Lock receives approved quality steel rods, then grinds, mills, and uses CNC machines to shape them into the parts they supply. Occasionally, the parts will be plated with chrome for rust resistance, but the company says they have not been using the chrome as much lately. The facility operates from 8 am to 4:30 pm Monday through Friday. Hydra Lock has approximately 22 employees at this facility.

Facility Inspection

I arrived at the facility at 2:58 pm. I met with Mr. Don Harrison, Production Manager. We sat down, and I stated the purpose of the inspection and provided my credentials. Mr. Harrison informed me that Mr. Bill Andre (supervisor of the chrome plating operation) was on vacation at the time. I discussed the documents I would be needing, and Mr. Harrison provided them. Hydra Lock's permit is for a mesh pad scrubber, which pulls air from both of their two chrome tanks. I asked both Mr. Harrison and Roger Lansdell if the facility uses or has ever used any fume suppressants in their chrome baths and both said that as far as they knew it has always been the scrubber. The chrome tanks were not operating at the time of inspection. I asked Mr. Lansdell if he could turn on the scrubber so I could take note of the pressure drop. The pressure drop at time of inspection was:

Stage 1: 0.9" of water
Stage 2: 2.0" of water
Stage 3: 0.6" of water

A stack test was conducted in July of 1999 per S.C. 9. The pressure drop of stage 1 appears to be within 1 inch of 0.65 inches as established from the stack test per S.C. 4.c. Similarly, the pressure drop of stage 2 appears to be within 1 inch of 1.5 inches as established from the stack test, and stage 3 was within 1 inch of 0.65 inches.

Mr. Lansdell reiterated how little the chrome tank is used recently. Next, Mr. Harrison showed me the rest of the plant area. The facility has several grinding, milling, and CNC machines, all of which are self-filtered (each machine has an air in-take mounted on that pulls in air and debris from the machine and collects it) and vent to the general plant environment and are therefore exempt from permitting per R 285 (2)(l)(vi)(B).

The facility has two cold cleaners, one that uses kerosene and another that uses a similar coolant to that used in machining operations. Both had lids closed and secured with operation procedures posted. The two cleaners appear to be exempt from permitting per R 281 (2)(h).

Compliance

PTI No. 252-98

SC 1: The total chromium emissions from the two chrome tanks shall not exceed 30 micrograms per cubic meter. Confirmed via stack test in July 1999 to be 1.4 micrograms per dry standard cubic meter.

SC 2: Facility shall not operate the two chrome tanks unless the composite mesh pad scrubber is installed and operating properly. At the time of inspection, the composite mesh pad scrubber was installed. The chrome tanks were not operating, however. I asked the operator to turn on the scrubber and it appeared to be operating properly based on the pressure drop values.

SC 3: Facility shall equip and maintain the control with a pressure drop indicator to measure the pressure drop across the control. The scrubber was equipped with a pressure drop indicator. Pressure drops at the time of inspection:

Stage 1: 0.9" of water
Stage 2: 2.0" of water
Stage 3: 0.6" of water

SC 4: Operator shall perform inspections as follows:

a. **Inspection of mesh pads shall be conducted quarterly. The facility has been conducting inspections every 3 months. (Attachment A)**
b. **Wash down of the mesh pads shall be conducted in accordance with the manufacturer's recommendations. Wash downs are performed alongside inspections or more frequently if needed. (Attachment A)**
c. **If the pressure drop varies by more than +/- 1 in of water gauge from the initial testing the variation shall be documented, and operation and maintenance procedures shall be reviewed. The facility records the pressure drop during every use of the tanks. No significant variations have occurred in the last two years. (Attachment B)**

SC 5: On a quarterly basis, the operator shall inspect the control device to ensure proper drainage, to ensure that there is no chromic acid build up on the mesh pads and ensure structural integrity. The facility is performing these inspections quarterly. (Attachment A)

SC 6: Facility shall maintain records of inspections required to comply with applicable work practice standards of the 40 CFR 63.342(f). The facility is keeping records of the inspections. (Attachment X)

SC 7: Monitoring and recording of emissions, operating and maintenance information is required to comply with the chrome NESHAP.

SC 8: Within 30 days of permit approval facility shall prepare and submit an operation and maintenance plan including start up, shut down and malfunction plan for the control. The facility submitted the plan within the deadline.

SC 9: Within 180 days of commencement of trial operation, verification of total chrome emissions shall be done via testing. Total chrome emissions verified via stack test July 1999, was 0.0014 mg per dscm.

SC 10: Exhaust from the two chrome tanks shall be discharged unobstructed vertically upwards to the ambient air no less than 30 feet above ground level. The stacks for the chrome scrubber appeared to be unobstructed. Dimensions of the stack not confirmed during the inspection.

Total Amperage hours consumed during 2016 and 2017 see attachments C and D.

Attachment E shows when the facility has used the chrome tanks, confirming their low usage in the past few years.

Compliance with special conditions of the permit also ensures compliance with the chrome NESHAP as the permit conditions are taken from the chrome NESHAP.

Conclusion

The facility appears to be operating in compliance with permit No 252-98, 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 [signature] DATE 7-12-18 SUPERVISOR SK