

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

N650936725

FACILITY: HYDRA LOCK CORP		SRN / ID: N6509
LOCATION: 25000 JOY BLVD, MOUNT CLEMENS		DISTRICT: Southeast Michigan
CITY: MOUNT CLEMENS		COUNTY: MACOMB
CONTACT: William Andre , CFO		ACTIVITY DATE: 08/24/2016
STAFF: Samuel Liveson	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Scheduled inspection of a minor source.		
RESOLVED COMPLAINTS:		

On August 24, 2016, I conducted an unannounced, scheduled, level 2 inspection of Hydra-Lock Corporation (Hydra-Lock), located at 25000 Joy Boulevard in Mount Clemens, Michigan. The purpose of this inspection was to determine the facility's compliance with the federal Clean Air Act, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended; the conditions of Permit to Install (PTI) No. 252-98; and 40 CFR Part 63 Subpart N-National Emission Standards for Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks (40 CFR Part 63 Subpart N).

I arrived on site around 2:10 PM. I met with Mr. Don Harrison, Production Manager, and with Mr. Bill Andre, CFO. Mr. Andre provided records and a site walkthrough. I provided Mr. Harrison and Mr. Andre with my contact information and a copy of the pamphlet "DEQ Environmental Inspections: Rights and Responsibilities."

#### Opening Meeting

Hydra-Lock manufactures hydraulic arbors and chucks for the aerospace and medical industries. Hydraulic arbors and chucks hold equipment in place to allow companies to work on it. Arbors expand inside of equipment to hold it in place, and chucks contract on the outside. The company typically operates Monday through Friday from 7:00 AM to 3:30 PM or 5:30 PM.

#### Facility Walk-Through

The facility receives raw steel rods that adhere to specifications to ensure a quality final product. From here, machining operations such as grinding, milling and CNC operations occur. Emissions from this equipment appear to be released only into the general in-plant environment, collected by indoor dust collectors, so this equipment is exempt from obtaining a Permit to Install per R 285(l)(vi)(B).

#### *Chrome Tanks – PTI No. 252-98 & 40 CFR Part 63 Subparts A and N*

Hydra-Lock has two hexavalent chrome tanks on site of fifty and forty gallon capacities. One chrome tank was operating during the facility visit. The non-operating chrome tank was closed. Tanks have rectifiers with capacities of 250 amperes and 300 amperes. Both tanks have ampere meters. Upon the facility visit, I observed a reading of three amps for the operating chrome tank. I talked with Roger, the chrome tank operator, who explained that the number of amps and length of time a part spends in the chrome tank depends on the part specifications. Flash chroming is conducted for rust proofing, or hard chroming may occur.

#### *Composite Mesh Pad Control*

100% pull ventilation on top of the chrome tank exhausts emissions through a composite mesh scrubber before venting to ambient atmosphere.

The scrubber appears to operate properly per PTI No. 252-98 S.C. 2. The scrubber has three stages. Three pressure gauges are in place, one for each stage of the scrubber per S.C. 3. I observed a pressure drop across stage 1 of 0.9 inches H<sub>2</sub>O, and a pressure drop across stage 2 of 1.9 inches H<sub>2</sub>O. Stage 3 had a pressure drop of 0.6 inches H<sub>2</sub>O. All three stages are rinsed every two or three months depending on their pressure drop per S.C. 4.b. Rinse water flows back into tanks to make up for tank water that has evaporated over time.

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. Emissions calculated from the stack test averaged 0.0014 milligrams (mg) per dry standard cubic meter (dscm), or 1.4 micrograms per cubic meter. This is below 30 micrograms per cubic meter per S.C. 1. Stack test results are located in the facility orange file.

I did not verify stack dimensions during this facility inspection.

#### *Chrome Records*

Mr. Andre provided an Operational Maintenance Plan for the chrome tanks per S.C. 1.8. The plan includes discussion of checklists for quarterly review, and includes a procedure to follow during a malfunction.

The CMP control device is inspected on a quarterly basis per S.C. 4.a and S.C. 5, including spray nozzles, mesh pads, drain lines, fan motor, and fan vibration. Records of quarterly inspections were provided per S.C. 6.

Mr. Andre provided operating information of both the CMP and chrome tanks when operating, including the daily CMP pressure drop, and the chrome tank amps and operating times per S.C. 7. Chrome tank operating information allows the facility to track total ampere hours of operations for Ongoing Compliance Status Reports.

Annual Ongoing Compliance Status reports, as required per 40 CFR Part 63 Subparts A and N, were provided for 2013 through 2015. In 2015, Hydra-Lock accumulated 704.8 ampere-hours total, so that it is considered a small, hard chromium electroplating facility per §63.341 (a).

#### *Cold Cleaners*

Two cold cleaners are on site. Both appear to be exempt from obtaining a Permit to Install per R281(h). One includes kerosene to clean parts. The other contains coolant, the same one used in machining operations, to rinse off parts where particulate has accumulated from grinding operations. Mr. Andre provided the MSDS of the coolant used. Lids were closed and operating procedures were posted.

According to facility contacts and from my site walkthrough, there are no boilers or emergency generators on site.

#### *40 CFR Part 63 Subpart W*

The facility may be subject to 40 CFR Part 63 Subpart W - National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Plating and Polishing Operations. The Air Quality Division does not have delegated authority to enforce this subpart.

Compliance

The facility appears to be in compliance.

NAME *Jan R.*

DATE 9/22/16

SUPERVISOR SK