

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

A191637250

FACILITY: CLASSIC METAL FINISHES, INC.		SRN / ID: A1916
LOCATION: 2500 W. ARGYLE STREET, JACKSON		DISTRICT: Jackson
CITY: JACKSON		COUNTY: JACKSON
CONTACT:		ACTIVITY DATE: 10/24/2016
STAFF: Mike Kovalchick	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Unannounced targeted inspection		
RESOLVED COMPLAINTS:		

### Minor Source Inspection

#### Facility Contact

Adam Powell (AP)-Production Manager [apowell@cmfpro.com](mailto:apowell@cmfpro.com) (More qualified personnel were on vacation.)

Company website: <http://www.cmfpro.com/>

#### Purpose

On October 24, 2016, I conducted an unannounced targeted/scheduled inspection of Classic Metal Finishes (Company) in Jackson. The purpose of the inspection was to determine the facility's compliance status with the applicable federal and state air pollution regulations, particularly Michigan Act 451, Part 55, Air Pollution Control Act and administrative rules, PTI 658-92, PTI 744-92, PTI 657-92 and the federal Chrome NESHAP Title 40, Part 63 Subpart N.

#### Facility Location

The facility is located in the city of Jackson. It is surrounded by commercial and residential areas on the West, South and East sides within about 400 feet. See attached aerial image.

#### Facility Background

The facility was last inspected on April 4, 2013 with no violations found. AP indicated that no significant changes had occurred since that time. The Company does machining, assembly and metal finishing mostly of aluminum aviation and automotive parts.

#### Regulatory Applicability

Active Permits: PTI 658-92 for an anodizing process, PTI 774-92 for a dry blast metal cleaning process and PTI 657-92 for a passivation process. The permits were originally issued to Aeroquip in 1993.

The Company has a 250 gallon chrome tank containing Alodine 600 which contains chromic acid and sodium chromate, "Tank 22" which is a 250 gallon tank containing chromic acid and phosphoric acid and "Tank 26" which is a 250 gallon tank containing trivalent chrome. These tanks are considered chrome conversion coating tanks. No electricity is being applied to these tanks and hence no electroplating is occurring. Chrome conversion coating tanks/tanks with no electroplating/electrolytic processes are exempt from the Chrome NESHAP. (See Attachment (1) MSDS's for the chrome compounds.)

#### Arrival & Facility Contact

Visible emissions or odors were not observed upon my approach to the facility. I arrived at approximately 9AM, proceeded to the Company's office to request access for an inspection, provided my identification, and met with Adam Power (AP) who is the production manager.

A pre-inspection conference was held with AP and provided an outdated copy of the MDEQ brochure: *Rights and Responsibilities Environmental Regulatory Inspections*. I informed AP of my intent to conduct a facility inspection and to review the various records as necessary. AP extended his full cooperation during the inspection, accompanied me during the full duration of the inspection, and fully addressed my questions.

### Pre-Inspection Meeting

AP outlined that the Company is currently operating 2 shifts (18 hours) per day, 5 days a week. Business has been good this year. The pre-meeting was very brief and we quickly moved on to the facility tour/inspection.

### Onsite Inspection

AP escorted me as I conducted the onsite tour portion of the inspection.

Anodizing Process (See Attachment (2) which contains technical details of this process)

**658-92** was issued to Aeroquip Corporation and approved on February 11, 1993 and has the following seven special conditions:

15. The nitric acid emission from the anodizing process shall not exceed 10.3 milligrams per cubic meter, corrected to 70°F and 29.92 inches of Hg.

This condition can only be evaluated based upon stack testing of the exhaust gases. To date, no testing has been required.

16. The phosphoric acid emission from the anodizing process shall not exceed 2.1 milligrams per cubic meter, corrected to 70°F and 29.92 inches of Hg.

This condition can only be evaluated based upon stack testing of the exhaust gases. To date, no testing has been required.

17. There shall be no visible emissions from the anodizing process.

Based upon observations of the stacks during the inspection, there were no visible emissions.

18. Rules 1001, 1003 and 1004 – Verification of nitric acid and/or phosphoric acid emission rates from the anodizing process by testing, at owner's expense, in accordance with Commission requirements, may be required for operating approval. Verification of emission rates includes the submittal of a complete report of the test results. If a test is required, stack testing procedures and the location of stack testing ports must have prior approval by the District Supervisor, Air Quality Division, and results shall be submitted within 120 days of the written requirement for such verification.

No testing has been required to date.

19. Applicant shall not operate the anodizing process unless the packed bed scrubber is installed and operating properly.

The scrubber is installed and appears to be operating properly based upon the liquid flow indicator, the pH being digitally monitored, a sight glass to ensure the sprays are working and

a magnehelic to monitor the pressure drop across the scrubber, which are observed periodically while the process is in operation. At the time of the inspection, the magnehelics showed 1.8" Water inlet, 3.8" Outlet for a drop of 2" across the scrubber. pH was 7.98. The scrubber water contains a caustic solution to neutralize the acidic emissions.

20. Applicant shall equip and maintain the packed bed scrubber with a liquid flow indicator.

A liquid flow indicator is installed and appeared to be operating properly.

21. The exhaust gases from the anodizing process shall be discharged unobstructed vertically upwards to the ambient air from a stack with a maximum diameter of 26 inches at an exit point of not less than 23 feet above ground level.

The height above ground level appears to be met since the height of the interior ceiling of the building is 17 feet. A roof inspection showed that there is small hole near the fan at the base of the scrubber stack. (See 2 attached photos.) AP promised to have somebody fix it as soon as possible. Otherwise, the duct work between the scrubber and roof appeared to be in good shape.

The scrubber and the anodizing line are connected so that one will not operate without the other referred to as a system lockout.

This line has a manual transfer of parts to and off the line.

Passivation Process (See Attachment (2) which contains technical details of this process)

The third permit **657-92** was issued to Aeroquip Corporation and approved on February 11, 1993 and has seven special conditions:

15. The nitric acid emission from the passivation process shall not exceed 58.7 milligrams per cubic meter, corrected to 70°F and 29.92 inches of Hg.

This condition can only be evaluated based upon stack testing of the exhaust gases. To date, no testing has been required.

16. The phosphoric acid emission from the passivation process shall not exceed 11.7 milligrams per cubic meter, corrected to 70°F and 29.92 inches of Hg.

This condition can only be evaluated based upon stack testing of the exhaust gases. To date, no testing has been required.

17. There shall be no visible emissions from the anodizing process.

Based upon observations of the stacks during the inspection, there were no visible emissions.

18. Rules 1001, 1003 and 1004 – Verification of nitric acid and/or phosphoric acid emission rates from the anodizing process by testing, at owner's expense, in accordance with Commission requirements, may be required for operating approval. Verification of emission rates includes the submittal of a complete report of the test results. If a test is required, stack testing procedures and the location of stack testing ports must have prior approval by the District Supervisor, Air Quality Division, and results shall be submitted within 120 days of the written requirement for such verification.

No testing has been required to date.

19. Applicant shall not operate the passivation process unless the packed bed scrubber is installed and operating properly.

The scrubber is installed and appears to be operating properly based upon the liquid flow indicator, the pH being digitally monitored, a sight glass to ensure the sprays are working and a magnehelic to monitor the pressure drop across the scrubber, which is observed periodically while the process is in operation. There was a 0.4" H<sub>2</sub>O water drop across the scrubber with a ph of 7.53.

20. Applicant shall equip and maintain the packed bed scrubber with a liquid flow indicator.

A liquid flow indicator is installed and appeared to be operating properly.

21. The exhaust gases from the passivation process shall be discharged unobstructed vertically upwards to the ambient air from a stack with a maximum diameter of 16 inches at an exit point of not less than 24 feet above ground level.

The height above ground level appears to be met since the height of the interior ceiling of the building is 17 feet.

The scrubber and the passivation process are connected so that one will not operate without the other referred to as a system lockout.

This line has an automated transfer of parts to and off the line.

#### Dry blast metal cleaning process

Permit **774-92** was approved on September 14, 1992 :

Small particulate source not evaluated and it was not obvious which process equipment applied to this permit. It may have been the paint booth room

#### Paint booth room:

This room contains 2 small manual paint booths and 2 small robotic paint booths coating metal parts. There was also a small manual curing oven that was operating at 300 Deg F. All the paint booths were exhausted outside and contained fabric filters. Amounts of paints used are small. The Company will forward paint records to show that monthly usage is well under 200 gallons/permit so likely qualify for Permit exemption Rule 287 (c).

#### Post-Inspection Meeting:

I held a brief post-inspection meeting with AP. I reviewed my findings that it appeared that the Company appeared to be in compliance with their 3 permits and other processes at the facility appeared to be exempt from air permitting. I indicated that I would need to further review the Chrome NESHAP for applicability and would get back to him if I discovered any problems. I asked to forward paint records to ensure that the painting that was being done was under the 200 gallon exemption and thanked AP for his time and cooperation, and departed the facility at approximately 10:30 AM.

#### Recordkeeping Review"

I reviewed the MSDS's for the chrome materials, and technical documents for the anodizing/passivation processes. The permit requirements for records are minimal.

### Compliance Summary

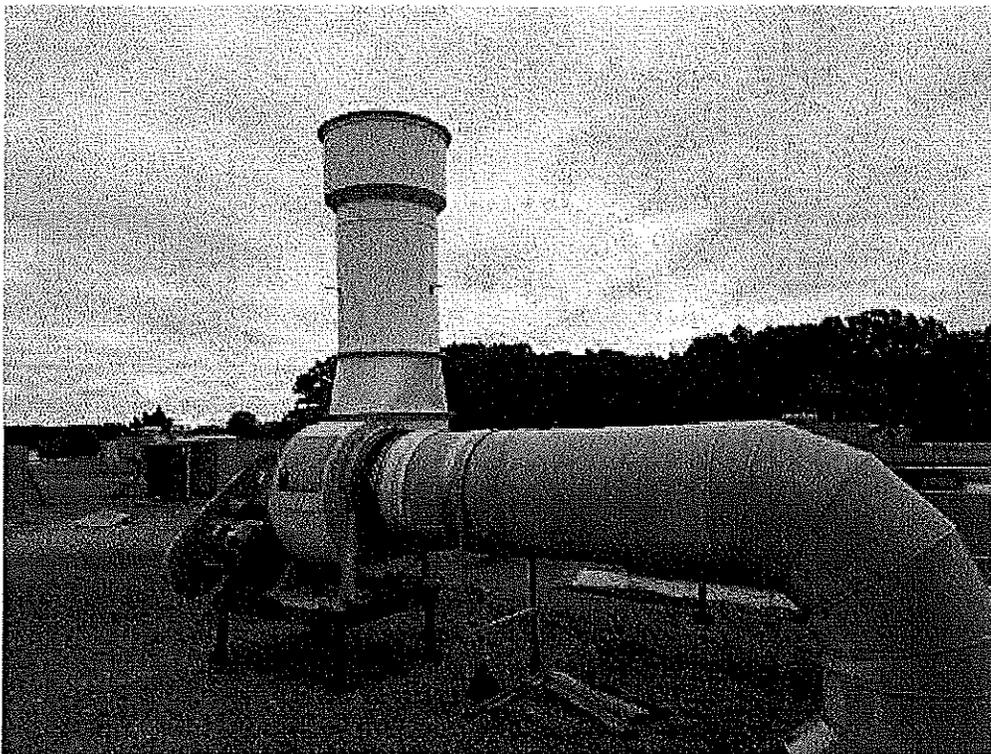
Based upon the facility inspection, review of the records, and review of applicable requirements, the Company appears to be in compliance. The Company promised to quickly fix the small leak in the scrubber exhaust stack.



Image 1(Aerial Photo) : Aerial photo of Classic Metal Finishes and local area.



**Image 2(Hole)** : Small Hole at base of scrubber stack.



**Image 3(Scrubber Exhaust)** : Scrubber exhaust stack. Note small hole at base near fan.

NAME M. Kovalchuk

DATE 10/25/2016

SUPERVISOR [Signature]