

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

N659137262

FACILITY: Great Lakes Metal Finishing, LLC		SRN / ID: N6591
LOCATION: 120 S DWIGHT STREET, JACKSON		DISTRICT: Jackson
CITY: JACKSON		COUNTY: JACKSON
CONTACT:		ACTIVITY DATE: 10/24/2016
STAFF: Mike Kovalchick	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: Minor
SUBJECT: Unannounced targeted compliance inspection		
RESOLVED COMPLAINTS:		

Minor Source Inspection**Facility Contact**

Cory Steadman (CS)-Plant Manager csteadman@glmflc.com ph 517-841-9380

Company website: Greatlakesmetalfinishing.com

Purpose

On October 24, 2016, I conducted an unannounced inspection of Great Lakes Metal Finishing, LLC (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, Permit to Install (PTI) 153-99A & 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 all sides with closest residence approximately 70 feet away. See attached aerial image.

Facility Background

The facility was last inspected on February 15, 2012 with no violations found. From the Company website: "Great Lakes Metal Finishing LLC has been in business since 1998 specializing in Anodize, Chromate Conversion, Passivation, Phosphate Coat, Media Blast, and Dry Film/Paint Operations. We specialize in anodizing and passivation, and offer comprehensive metal finishing solutions whether you work in aerospace, automotive, or any metal finishing need." The Company's only permit was modified on July 29, 2013 to add a passivation line, dye and rinse tanks and 3 nickel acetate tanks.

Regulatory Applicability

Active Permits: PTI 153-99A - for an anodizing line, passivation process, phosphate process, dye tanks and 3 nickel acetate tanks.

The Company has a 180 gallon chrome tank containing Alodine 600 which contains some chromic acid and sodium chromate at a concentration of 15 grams per liter of water. This tank is considered to be a chrome conversion coating tank. No electricity is being applied to this tank 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 Company's facility. I arrived at approximately 11 AM, proceeded to the facility office to request access for an inspection, provided my

identification, and met with Cory Steadman (CS) who is the plant manager. A pre-inspection conference was held with CS and provided a copy of the MDEQ brochure: *Rights and Responsibilities Environmental Regulatory Inspections*. I informed CS of my intent to conduct a facility inspection and to review the various records as necessary. CS extended his full cooperation during the inspection, accompanied me during the full duration of the inspection, and fully addressed my questions.

Pre-Inspection Meeting

CS outlined that the Company is currently operating 1 shift (8 hours) per day, 5 days a week. We discussed PTI 153-99A and the various records required by the permit. CS indicated that the permit predated the 2 years that he had been working there and wasn't completely familiar with all the requirements. We then moved on to the facility tour/inspection.

Onsite Inspection

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

These are the active processes at the facility:

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Flexible Group ID
EUANODIZE	Anodizing line consisting of three sulfuric acid anodizing tanks, cleaning tanks, neutralizing tanks, conversion coating tanks, an etch tank and multiple rinse tanks. The anodizing tanks are controlled by a packed bed scrubber system.	FGSCRUBBER
EUPASSIVATE	Passivation process consisting of two passivate tanks that are controlled by a packed bed scrubber system. The line also contains a cleaning tank, de-scale tank and multiple rinse tanks.	FGSCRUBBER
EUPHOSPHATE	Phosphate coating process controlled by a packed bed scrubber system.	FGSCRUBBER
EUDYELINE	This line consists of multiple dye tanks along with three (3) nickel acetate tanks that are controlled by an in line chevron blade with mist eliminator. The dye and rinse tanks in this line are uncontrolled.	FGDYE&BLACKOXIDE
Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1290.		

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGSCRUBBER	Anodizing, phosphating and passivation process lines controlled by a common packed bed scrubber system with mist eliminator.	EUANODIZE, EUPASSIVATE, EUPHOSPHATE
FGDYE&BLACKOXIDE	The dye line consists of multiple dye tanks along with three (3) nickel acetate tanks that are controlled by an in line chevron blade with mist eliminator. Additionally, the same	EUDYELINE, EUBLACKOXIDE

	stack will vent the black oxide coating process. The dye tanks, rinse tanks and black oxide coating process are uncontrolled.	
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The EUBLACKOXIDE portion of FGDYE&BLACKOXIDE is no longer there.

FG Scrubber has the following Permit requirements that were reviewed:

PROCESS/OPERATIONAL RESTRICTIONS, DESIGN/EQUIPMENT PARAMETERS, MONITORING/RECORDKEEPING and STACK/VENT RESTRICTIONS permit conditions. Of these conditions, some of the Monitoring/Recordkeeping conditions are not being followed by the Company which have been underlined below:

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1201(3))

1. The permittee shall complete all required records in a format acceptable to the AQD District Supervisor by the end of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. (R 336.1224, R 336.1225, R 336.1910)
2. The permittee shall perform inspections of the packed bed scrubber system as follows:
 - a) Determine the liquid flow rate of the packed bed scrubber on a daily basis. If the liquid flow rate is not within the range as specified by the manufacturer, the permittee shall document the variation, and review operation and maintenance procedures. The permittee shall document any corrective action.
 - b) Determine pressure drop across the packed bed scrubber on a daily basis. If the pressure drop across the control varies by more than what is recommended by the manufacturer, the permittee shall document the variation, and review the operation and maintenance procedures. The permittee shall document any corrective action.

The scrubber was operating showing a pressure drop of 0.8" of H₂O. (Proper operating range was not known.) No log sheets were noted in the vicinity of the scrubber which is indicative that pressure drop readings are not being recorded daily as required. The waste scrubber water was being pre-treated in order to meet pH waste water requirements.

Tank 23 was a 180 gallon tank containing Alodine 600; a chromium tri-oxide solution. There was no electricity being applied to the tank and the tank is not to be subject to the Chrome NESHAP.

FGDYE&BLACKOXIDE has the following requirements that were reviewed:

PROCESS/OPERATIONAL RESTRICTIONS, DESIGN/EQUIPMENT PARAMETERS, MONITORING/RECORDKEEPING and STACK/VENT RESTRICTIONS permit conditions. I had no finds of noncompliance.

The Company did provide via email a voluminous spreadsheet that showed compliance with MONITORING/RECORDKEEPING Condition VI.2. After the inspection, the Company also provided a Preventative Maintenance Report that shows compliance with the operation and preventative maintenance requirement for the scrubber/mist eliminator. (See Attachment (2)) I asked the Company via email to provide their formal operation and preventative maintenance plan for our files which will be placed there when it is received.

The mist eliminator appeared to be operating properly with a pressure 0.5" of H2O when observed during the inspection.

A roof inspection resulted in no findings. (Roof had to be accessed via ladder that Company provided.) All ventilation ducts and exhausts appeared to be satisfactory.

There was also a small paint booth with a small oven. Records showed that it was exempt from Permit requirements per Rule 282 and Rule 287 and It was being exhausted outside with particulate filters in place.

Recordkeeping Review

I reviewed the MSDS's for the chrome materials and how much of the material used. (Less than 100 pounds in 2016.) After the inspection, I reviewed spreadsheets that show compliance with the tank solution additions and related data.

Post-Inspection Meeting

I held a brief post-inspection meeting with CS. I reviewed my findings that the Company appeared to be in substantial compliance with their permit. However, required daily recording of scrubber data is not being done. I also indicated that I would need to further review the Chrome NESHAP for applicability and would get back to him if compliance concerns were noted. I also asked to forward paint records to ensure that the painting that was being done was under the 200 gallon exemption and thanked CS for his time and cooperation, and departed the facility at approximately 12:15 PM.

Compliance Summary

Based upon the facility inspection, review of the records, and review of applicable requirements, while the Company is in substantial compliance, it not in compliance with recordkeeping requirements for the scrubber and therefore I could not verify that the scrubber had been in proper operation prior to the inspection. A Violation Notice (VN) will be sent to the Company that will outline the violations and request a corrective action program.



Image 1(Aerial Photo) : Great Lakes Metal Finishing aerial photo of plant and local vicinity.

NAME *M. K. Schick*

DATE 10/31/16

SUPERVISOR *[Signature]*