

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

P082652210

FACILITY: Metal Finishing Technology		SRN / ID: P0826
LOCATION: 2652 Hoyt Street, MUSKEGON		DISTRICT: Grand Rapids
CITY: MUSKEGON		COUNTY: MUSKEGON
CONTACT: Joe Wingett		ACTIVITY DATE: 01/15/2020
STAFF: Scott Evans	COMPLIANCE STATUS: Compliance	SOURCE CLASS: Minor
SUBJECT: Unannounced Inspection		
RESOLVED COMPLAINTS:		

On Wednesday, January 15, 2020, Scott Evans (SE) and Chris Robinson (CR) conducted an unannounced scheduled inspection at Metal Finishing Technologies at approximately 10:15 AM. Upon arrival there were no notable odors or visible emissions outside of the facility. SE and CR met with Ms. Nicole Crawford (NC), who is a manager and part owner of the facility. A visual inspection was conducted with NC and records were obtained after the inspection through contact with Mr. Joe Wingett (JW), who is another manager at the facility.

Facility Inspection

During the facility tour three process lines were observed: The Passivation line, the Black Oxidizing line, and the Anodizing line. The facility also offers Pickling as a service, which is conducted through use of only select tanks that are part of the Black Oxidizing line.

The Passivation line utilizes the following process tanks to clean stainless-steel components:

1. Alkaline Cleaner
2. Water Rinse
3. Nitric Acid
4. Final Water Rinse

Parts of this process are heated.

The Anodizing line utilizes the following process tanks to treat, finish, and color aluminum components:

1. Alkaline Cleaner
2. Alkaline Cleaner
3. Sodium Hydroxide (Etching)
4. Rinse
5. DSMUT
6. Rinse
7. Anodize or Hard Coat (Sulfuric Acid)
8. Rinse
9. Anodize (Sulfuric Acid)
10. Anodize (Sulfuric Acid)
11. Rinse
12. Green or Black dye (as ordered)
13. Double Rinse
14. Gold, Turquoise, Blue, Red, or Orange dye (as ordered)
15. Rinse
16. Seal
17. Hot Rinse

Parts of this process are heated

The Black Oxidizing line utilizes the following process tanks to treat and finish steel components:

1. Alkaline Cleaner
2. Rinse
3. Muriatic Acid
4. Rinse
5. Black Oxide
6. Double Rinse
7. Oil or Acrylic (As ordered)

Parts of this process are heated.

During the tour it was observed that all processes are normally vented to the interior of the facility. However,

there are fans and venting systems that allow for venting to the exterior environment if needed for worker comfort and safety.

Records

On Tuesday, January 22, 2020, JW provided the department with records regarding chemicals used within the facility as well as the MSDS for the fume suppressant used at the facility. The original calculation sheets and the MSDS are attached to this report.

The calculation sheets provide emissions calculations from the year 2017. It was noted by the facility that processes have not significantly changed and so usage of materials stays largely the same from year to year. The calculations provided all follow the same formula:

· $(\text{Monthly Chemical Usage}) \times (\text{Chemical Concentration}) \times (\text{Emission Factor}) = (\text{Monthly Emissions})$.

In their calculations, the facility uses a 300 hours/month operational factor to calculate an hourly rate. Using this hourly rate to expand to a potential yearly 8760 hours of operation, the maximum possible emissions are as follows:

- 7.1 lbs H₂SO₄ per month
- 77.9 lbs NaOH per month
- 4.9 lbs NaCl per month
- 18.7 lbs NaNO₃ per month

All monthly emission calculations have been double checked and appear accurate. The calculated maximum possible emission rates are all well below monthly limits and demonstrate compliance with Rule 290 requirements for exemption from air permitting regulations.

The MSDS that was provided for the fume suppressant used by the facility confirms that it is an appropriate chemical to use for suppressing H₂SO₄ fumes and demonstrates that no PFAS/PFOS/PFOA chemicals are used.

Conclusions

Based on the inspection and provided records, it appears that the facility is in compliance with air quality regulations. Maintained records appear to meet Rule 290 requirements for permitting exemption. No further actions are required for this facility at this time.

NAME



DATE

2/4/2020

SUPERVISOR

