

DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION  
ACTIVITY REPORT: On-site Inspection

B557862078

<b>FACILITY:</b> Light Metals Corp		<b>SRN / ID:</b> B5578
<b>LOCATION:</b> 2740 Prarie St SW, WYOMING		<b>DISTRICT:</b> Grand Rapids
<b>CITY:</b> WYOMING		<b>COUNTY:</b> KENT
<b>CONTACT:</b>		<b>ACTIVITY DATE:</b> 12/01/2021
<b>STAFF:</b> Michael Cox	<b>COMPLIANCE STATUS:</b> Compliance	<b>SOURCE CLASS:</b> MINOR
<b>SUBJECT:</b> Scheduled Unannounced Inspection		
<b>RESOLVED COMPLAINTS:</b>		

Air Quality Division (AQD) staff Michael Cox (MTC) arrived at the facility at 9:45 am on December 1, 2021, to complete a scheduled, unannounced inspection. No visible emissions or odors were noted upon arrival.

### Facility Description

Light Metals Corporation (Light Metals) is an aluminum fabrication company. The site currently does not operate under a permit, but instead utilizes exemptions for all onsite processes.

### Compliance Evaluation

AQD staff MTC met with Mr. Brandon Grantham, Operations Manager, and Mr. Randy Thompson, Maintenance Manager, who provided a walk-through of the facility and helped answer site specific questions.

A Rule 278a request dated May 16, 2018, was sent to the company requesting a list of all exempt equipment/processes, descriptions, what exemptions Light Metals Corporation believes are applicable and an analysis demonstrating that Rule 278 does not apply to any process or process equipment. A response to the Rule 278a request was received by AQD staff on June 15, 2018. In the Rule 278a response Light Metals Corporation included a "worst-case scenario" potential to emit (PTE) calculation for all emission units on site. The PTE is a onetime demonstration to show that potential emissions are within acceptable limits for the facility to be exempt from permitting requirements of Rule 201. This PTE is on file at the Grand Rapids AQD District Office.

During the walk through of the facility the following observations were made:

- One extrusion press was observed on site where aluminum tubes shipped on site are extruded to the appropriate size. Following the extrusion press the aluminum parts are then stretched and then are heat aged based on part specifications by a heat-treating oven. The extrusion press appears to be exempt per Rule 285(2)(k). The heat-treating oven appears to be exempt per Rule 282(2)(b)(i).
- Following the heat aging process, the aluminum metal parts are sent to the initial part of the fabrication area. This area consists of two main sawing machines and several smaller saws where the metal parts are cut into small pieces. Emissions from the sawing machines go through a settling chamber and a dust collector before being vented internally. Hoppers were observed

where metal particulate from the dust collectors are collected. This appears to be exempt per Rule 285(2)(l)(vi).

- Several maintenance areas were observed. These areas consisted of various equipment including saws, drill presses and a welding area. This appears to be exempt per Rule 285(2)(l)(vi).
- One Cold Cleaner was noted on site. This unit is for the one cold cleaner stated on site that has an air/vapor interface of less than 10 square feet and Light Metals Corporation believes is exempt per Rule 281(2)(h).
- The main fabrication area was observed during the inspection. In this area, various metal processes including stamping or hole punching, drilling, etc. are completed. Several dust collectors were observed. All emissions from this portion of the facility are vented internally. This appears to be exempt per Rule 285(2)(l)(vi).
- The facility utilizes several computer numerical control (CNC) machines where holes are punched through metal parts. The metal parts are quenched with water. The machines are self-contained, and the water is reused. A total of seven CNC machines were noted on site. The CNC machines appear to be exempt per Rule 285(2)(l)(vi).
- One anodizing line was observed in operation during the site inspection. This process involves metal parts loaded on racks and then proceed through the anodizing line. The line consists of thirty-one tanks. Half of the tanks are rinse tanks with the remaining tanks including sodium hydrogen, sulfuric acid, nitric acid, and nickel acetate. Two dye tanks were observed and are no longer in use on the anodizing line. Numerous stacks were observed that are associated with the anodizing line. It was verified that no changes had been made to the unit since the last inspection conducted on May 4, 2018, and the submitted PTE on June 15, 2018, that would have increased emissions. The “worst-case” emissions from the anodizing line were calculated at 86.78 lbs/month of uncontrolled emissions of Sulfuric and Nitric Acid. From the PTE and SDS provided by Light Metals Corporation it was concluded that the anodizing line appears to be exempt per Rule 285(2)(l)(iii), Rule 285(2)(r), and Rule 290(2)(a)(ii).
- A buffing area was observed during the site visit, where metal parts are buffed and polished. Two vents from the buffing area vent outside to what appears to be two bag collection systems and one cyclone. This area was not in operation during the visit and was stated to be an intermittent process by facility staff. This area appears to be exempt per Rule 285(2)(l)(vi).
- The wastewater treatment part of the facility was observed. Wastewater from onsite processes is sent to the area for treatment before being sent offsite. One 30,000-gallon tank where wastewater is initially sent to before being separated out was observed. This area appears to be exempt per Rule 285(2)(m).

- The bulk storage tank area was observed where tanks containing nitric acid, sulfuric acid, phosphoric acid, and caustic soda were observed. The tanks are each 5,000 gallons in size. The Nitric Acid tank contains nitric acid that is not more than 20% by weight. The tank is 5,000 gallons in size and appears to be exempt per Rule 290(2)(a)(ii). The “worst-case” nitric acid emissions calculated for the Nitric Tank total 0.0122 tons per year, which is well below the 1,000 lb monthly limit of uncontrolled emissions. The Sulfuric Acid tank contains sulfuric acid with a solution of 93.10% by weight. Supporting documentation was provided verifying the solution was less than 99% sulfuric acid and it was stated that no changes have been made to the sulfuric acid solution. The Sulfuric Acid tank appears to be exempt per Rule 284(2)(h)(i). The Phosphoric Acid tank contains phosphoric acid that is less than 99% by weight. A Certificate of Analysis dated February 6, 2015, identifies a phosphoric acid content of 79.88%, which is well below the limit. The Phosphoric Acid tank appears to be exempt per Rule 284(2)(h)(ii). The caustic soda tank contains a water solution of an inorganic base. The tank is 5,000 gallons in size and appears to be exempt per Rule 284(2)(h).

- Two boilers were observed during the course of the inspection. One boiler was a Clever Brooks natural gas fired boiler rated for 8.40 MMBtu/hr and was installed in 1961. This boiler was noted to be last tested on November 1, 2021. Facility staff stated that this boiler is used for back-up. The second boiler was a Burnham Commercial Boiler that is natural gas fired, rated for 6.3 MMBtu/hr and was installed in 2013. It was noted that this boiler was last tested on November 1, 2021. Based on the size of the boilers they are not subject to federal new source performance standards (NSPS). The two boilers appear to be exempt per Rule 282(2)(b)(i).

- Two die washers were observed during the inspection that are used for the cleaning of aluminum left behind in dies. A stack was observed connected to the die washers that vents externally. The die washers use a sodium hydroxide solution that is approximately 50% by weight. The washers’ mixture is heated electrically. Additionally, the mixture is not heated above its boiling point. A SDS was provided for the material used and it was verified by the supplier that the mixture does not contain any VOCs. The two die washers appear to be exempt per Rule 281(2)(e).

### Conclusion

Based on observations made during the facility walk through, records provided, and the Rule 278a demonstration, Light Metals Corporation appears to be in compliance with applicable state and federal air quality rules at this time.

NAME Michael T. Cox

DATE 3/8/2022

SUPERVISOR HH