

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

N131470952

FACILITY: GLADWIN METAL PROCESSING		SRN / ID: N1314
LOCATION: 795 EAST MAPLE STREET, GLADWIN		DISTRICT: Bay City
CITY: GLADWIN		COUNTY: GLADWIN
CONTACT:		ACTIVITY DATE: 02/29/2024
STAFF: Nathanael Gentle	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Scheduled Onsite Inspection FY24		
RESOLVED COMPLAINTS:		

On February 29, 2024, AQD staff conducted a scheduled onsite inspection at Gladwin Metal Processing, SRN N1314. The purpose of the inspection was to determine compliance with the Federal Clean Air Act; Article II, Part 55, Air Pollution Control of Natural Resources and Environmental Protection Act, 1994 Public Act 451; Michigan Department of Environment Great Lakes and Energy, Air Quality Division (AQD) Administrative Rules; and to evaluate compliance with the facility's Permits to Install, PTI No. 331-06. EGLE staff were assisted onsite by Karol Govitz. At the time of inspection, the facility was found to be in compliance.

Facility Description and History

Gladwin Metal Processing is located at 795 East Maple Dr, Gladwin, MI 48624. The facility specializes in metal coating for a range of clients. Coating activities consist primarily of powder coating. The facility also operates a Bell automatic coating line for application of water-based paint. Metal surfaces are prepared for coating using sand blasting. A burn off oven is used to remove paint material build up from racks used in the Bell coating line.

Gladwin Metal Processing is a minor source of all regulated air pollutants. One active Permit to Install is associated with the facility, PTI No. 331-06. PTI No. 331-06 was issued on 10/30/2006. The permit is a general PTI for a natural gas-fired burnoff oven. Two voided permits are on file for the facility, PTI 184-86 and PTI 121-88. PTI 184-86 was issued on 4/9/1986 for the Bell automated paint line. The permit was voided on 10/17/2006 as the equipment was able to operate as exempt under R. 336.1287(c). PTI 121-88 was issued on 6/2/1988 for a paint spray booth. The PTI was voided on 10/17/2006 because the equipment was removed from the facility. Additional unpermitted equipment onsite operates under the AQD Permit to Install exemptions. No complaints are on file for the facility. The facility was last inspected in February 2015. At the time of the 2015 inspection the facility was found to be in compliance.

Compliance Evaluation

Sand Blasting

Metal is prepared for painting by removing surface material using sand blasting. The facility is equipped with a small sand blasting cabinet as well as a large sand blasting booth. Sand blasting is primarily conducted in the walk-in sand blasting booth. Staff report the sand blasting booth was installed at the facility approximately five years ago. The booth was observed to be equipped with a fabric filter collector located within the facility. Air emissions from the fabric filter are vented to the general in-plant environment. The sand blasting cabinet is used for smaller pieces.

The cabinet is equipped with a dust collection system. Sand blasting activities conducted onsite appeared to meet the permit to install exemption requirements of Rule 336.1285(I)(vi)(C).

Powder Coating

Powder coating is the primary coating activity conducted onsite. The facility powder coats a variety of metal components for a wide range of clients. The facility utilizes two powder coating booths and two associated ovens. Both powder coating booths are equipped with fabric filter control. Powder coating activities conducted onsite appeared to meet the permit to install exemption requirements of Rule 336.1287(d).

Bell Automated Paint Line

As part of onsite operations, the facility operates a Bell automated coating line. The process operates as exempt from needing a PTI under exemption Rule 336.287(c). Facility staff reported the line is currently solely used to coat wear bars produced by a local manufacturer for snowmobiles. The line was not in operation at the time of inspection. Staff stated the line is operated approximately once a week. The paint line process begins with loading parts to be coated onto racks. The parts are then passed through the cleaning portion of the coating line where they are cleaned with iron phosphate. The parts exit the cleaning portion and are dried prior to being coated. The parts are then coated with paint. Once coated the parts are dried by passing through a cure oven.

Paint used in the coating line is water based. Staff report approximately 3 gallons of paint are used in the coating line per week. The paint lines are cleaned with methyl ethyl ketone. Monthly records of coatings used are maintained in the form of purchase records. Purchase records were reviewed for the last 2 months. During the period of records reviewed, the facility purchased 30 gallons of the water-based paint and one gallon of the cleaning solvent per month. Based on the records reviewed, the facility's coating usage rate is not more than 200 gallons, as applied, minus water, per month, as required to qualify for exemption Rule 336.287(c).

EU-BURNOFF

EU-BURNOFF is a Blu-Surf Model 6606 burn off oven produced by Jackson Oven Supply. The emission unit is permitted under PTI 331-06, a general PTI for natural gas fired burnoff ovens. Staff report the burn off oven is used primarily to remove paint build up from racks used in the Bell paint line. At the time of inspection, the burn off oven was observed to be in place, but not operating. Staff report the oven is used approximately once a week.

Staff verified the fuel source of the oven is natural gas, Special Condition (S.C.) II.1. Staff report during operation of the unit, the stack is periodically monitored to ensure no visible emissions occur, S.C.II.1. The unit is used to remove cured paints from metal parts and hangars, S.C.II.2. PTI 331-06 stipulates the unit may not be used for activities such as the thermal destruction or removal of rubber, plastics, uncured paints, or any other materials containing sulfur or halogens, S.C.III.1. Additionally, the permittee shall not load any transformer cores, which may be contaminated with PCB-containing dielectric fluid, wire or parts coated with lead or rubber, or any waste materials such as paint sludge or waste powder coatings into EU-BURNOFF, S.C.III.2.

EU-Burnoff is equipped with an automatic temperature control system, S.C.IV.2. The unit will automatically shut down if the afterburner is not operating properly or if the temperature drops below the minimum setpoint, S.C.IV.3. Special Condition IV.1. stipulates satisfactory operation of the afterburner includes maintaining a minimum temperature of 1400°F and a minimum retention time of 0.5 seconds. Staff report the setpoint of the after burner is 1600°F. The primary chamber of the burnoff oven is reported to be operated at 800°F. The burnoff oven is equipped with a digital readout display to view the operating temperature of the oven and afterburner. A disc chart recorder is in place that continuously records the afterburner temperature during operation, S.C.IV.4. Disc chart temperature records are maintained on file at the facility. A subset of the temperature records were reviewed as part of the onsite inspection. Temperature charts reviewed indicated the burn off oven is operated at the minimum 1400°F.

Special condition VI.2. stipulates the permittee shall calibrate the thermocouples associated with the primary and secondary chambers at least once per year. Staff reported maintenance was recently completed on the unit in January 2024, including reworking the inside liner of the primary chamber and calibration of the thermocouples. While the thermocouples were calibrated within the last year, staff stated there were not currently procedures in place to have the thermocouples calibrated on an annual basis. Staff were made aware annual calibration of the thermocouples is a requirement of the permit and stated the calibrations would be completed annually moving forward.

Onsite staff reported that limited malfunctions occur with the unit. Staff stated if malfunctions were to occur, written procedures are in place detailing what steps need to be taken, including documenting the malfunctions, S.C.VI.4. Special Condition VI.5. states the permittee shall maintain a current listing from the manufacturer of the chemical composition of each material (cured coating, oil or grease) processed in EU-BURNOFF. The facility maintains current sds copies of all coatings used at the facility, satisfying this permit condition.

Additional Equipment Onsite

Previous inspection reports described a zinc phosphating process conducted at the facility. During the inspection completed on 2/29/2024, equipment associated with the zinc phosphate line was observed to still be onsite but not operational. Staff reported the process had not been in use for many years. They stated plans are in place to remove the old equipment from the facility and utilize the space as maintenance area.

Summary

On February 29, 2024, AQD staff conducted a scheduled onsite inspection at Gladwin Metal Processing, SRN N1314. Gladwin Metal Processing is located at 795 East Maple Dr, Gladwin, MI 48624. The facility specializes in metal coating for a range of clients. Gladwin Metal Processing is a minor source of all regulated air pollutants. One active Permit to Install is associated with the facility, PTI No. 331-06. The permit is a general PTI for a natural gas-fired burnoff oven. At the time of inspection, the facility was found to be in compliance.

NAME 

DATE 3/7/2024

SUPERVISOR 