

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

U55200002752795

FACILITY: Superior Welding and Manufacturing Inc.		SRN / ID: U552000027
LOCATION: Old US Hwy 2 Rd No 43, Hermansville		DISTRICT: Upper Peninsula
CITY: Hermansville		COUNTY: MENOMINEE
CONTACT: Nick Arduin , Opertaions Manager		ACTIVITY DATE: 03/05/2020
STAFF: Michael Conklin	COMPLIANCE STATUS: Compliance	SOURCE CLASS:
SUBJECT: Targeted Inspection for FY 20.		
RESOLVED COMPLAINTS:		

Facility: Superior Welding and Manufacturing Inc. (SRN: U552000027)
Location: W5521 Railroad Ave., P.O. Box 145, Hermansville, MI 49847
Contact(s): Nick Arduin, Operations Manager, 906-282-3157
Kelly Plunger, President

Regulatory Authority

Under the Authority of Section 5526 of Part 55 of NREPA, the Department of Environment, Great Lakes, and Energy may upon the presentation of their card, and stating the authority and purpose of the investigation, enter and inspect any property at reasonable times for the purpose of investigating either an actual or suspected source of air pollution or ascertaining compliance or noncompliance with NREPA, Rules promulgated thereunder, and the federal Clean Air Act.

Facility Description

Superior Welding and Manufacturing (Superior) provides production welding and custom fabrication services at their facility located in Hermansville, Menominee County, MI. The company primarily provides custom fabrication and welding for the mining and wood products industries. The source is currently an unregistered facility with no air permits.

In August 2019, the AQD received a letter stating a new spray booth would be installed at Superior under Permit to Install (PTI) exemption Rule 287(2)(c). The spray booth would contain dry filters, coating usage would be less than 200 gallons per month, and coating records would be maintained monthly.

A second letter was received in December stating Superior had installed and began operations of the spray booth. The letter also stated Superior would be operating in full compliance with Rule 287(2)(c) and coating usage was being tracked daily.

Emissions

Volatile organic compounds (VOCs) are emitted during coating operations with solvent-based and water-based coatings. A coating can consist of resins, pigments, solvents, diluents, reducers, and thinners. Resins and pigments usually make up the solid (non-evaporative or non-volatile) portion of the coating. The volatile portion of the coating can consist of water, solvents, diluents, reducers, and thinners. These compounds evaporate during the application and curing of the coating. All unrecovered solvent can be considered potential emissions of VOCs.

Emissions Reporting

The source is not a fee-subject facility and does not have to report its annual emissions to the Michigan Air Emissions Reporting System (MAERS). There are no current state air permits or federal regulations associated with this source.

Compliance History

No prior air inspections have been performed at this source and thus no violation notices have been issued.

Inspection

On March 5, 2020, I conducted an unannounced inspection on Superior. I arrived at the office building and met with Operations Manager, Nick Arduin, and President, Kelly Plunger. I explained to Mr. Arduin and Mr. Plunger that the purpose of the inspection was to ensure compliance with state air pollution control rules and federal regulations. The inspection began with a tour of the facility and associated emission units.

EU-SPRAYBOOTH

This emission unit is a 16'W x 16'H x 64'L spray booth with polyester exhaust filters to remove particulates. The spray booth contains a natural gas-fired 2.7 MMbtu/hr air makeup unit that provides 25,500 CFM of cross draft. Exhaust emissions are drawn out of the booth and exit the facility to the atmosphere. Coating operations began in the booth on December 18, 2019. Superior also contains a paint mix room that ventilates to the atmosphere.

Superior uses a daily chemical tracking sheet that records coating usage and waste in gallons. A net total weekly consumption is tracked, and each week's total usage is added to produce a total monthly usage. For January 2019, the total net monthly usage was 198 gallons. This monthly usage is close to the 200-gallon limit for the exemption. It should be noted that records indicate water is not being subtracted for water-based coatings usage. To calculate volume as applied, minus water, the following equation can be used:

$$\text{Gallons of coating used} * (1 - \% \text{ water by volume} / 100) = \text{gallons of coating (minus water)}.$$

It was advised to Mr. Arduin and Mr. Plunger that having a PTI would allow for more flexibility for coating usage when business allows. It was also advised to not exceed the 200-gallon limit before applying for a PTI, otherwise the source would be in Rule 201 violation.

Compliance

Based on this inspection, Superior Welding and Manufacturing is currently in compliance with all state air pollution control rules and federal regulations. It is recommended the company apply for a PTI before exceeding the 200-gallon per month coating limit.

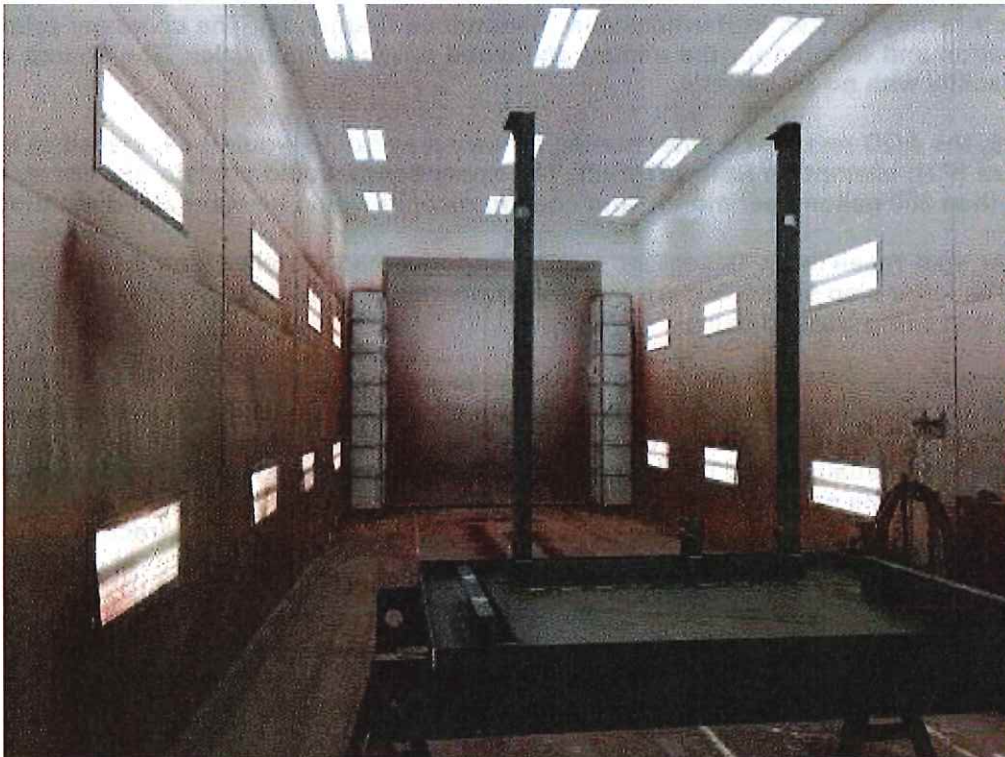


Image 1(Spray Booth) : Interior of the spray booth with dry filters at the inlet and outlet.

NAME Michael Mblin

DATE 3/13/20

SUPERVISOR gll