

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

N391469022

FACILITY: MANNETRON		SRN / ID: N3914
LOCATION: 74 LEONARD WOOD ROAD, BATTLE CREEK		DISTRICT: Kalamazoo
CITY: BATTLE CREEK		COUNTY: CALHOUN
CONTACT: Michael Clark , President		ACTIVITY DATE: 08/21/2023
STAFF: Rachel Benaway	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MINOR
SUBJECT: On site inspection to verify compliance with conditions and requirements of PTI #461-93 and all state and federal air use regulations.		
RESOLVED COMPLAINTS:		

AQD staff (Rachel Benaway and Jared Edgerton) conducted an unannounced air quality inspection of Mannetron (N3914), a casting facility located in Battle Creek, MI, on 8/21/2023. The purpose of this inspection was to verify Mannetron is in compliance with their Permit to Install (PTI) #461-93 and all state and federal air use regulations. Mannetron is considered a minor source of volatile organic compound (VOC) emissions. The facility is not subject to any New Source Performance Standard (NSPS) or National Emission Standards for Hazardous Air Pollutants (NESHAP). The last inspection was completed at the facility on 8/16/2012. Michael Clark is the facility owner, responsible for submitting requested records. Moran Junungen, Production Assistant, was present for the on-site inspection. Personal protection equipment includes safety glasses and safety shoes.

The facility employs approximately 16 people and operates 5 days a week. Mannetron produces 3D sculptures/statues, presentation models, robotics, structures and interactives for advertising companies, expos, street art, museum exhibits, and more. There are no boilers, cold cleaners, or emergency engines at this facility.

#	Equipment at Facility
	Production area: air brush coating operation (Exempt Rule 287(2)(c) - if coating usage under 200 gallons/month Sand blasting unit and plastic cutting table- filters equipped, vent internally- (Exempt Rule 285(I)(vi)(B))
	Paint Booth Room: Binks Paint Booth w/ mat filter panels
	Fiberglass layup operation: External mold production with gel coat resin over fiberglass fabric on castings (Exempt Rule 290: requires records)
	Production area: Rotocasting machines (Exempt Rule 286(a)) Polyurethane injection process/reaction injection molding (Exempt Rule 286(e)) Silicone rubber material application (Exempt Rule 287(a) - requires records)
	*Metal fabrication area: drills, saws (Exempt Rule 285(I)(vi)(B)) *Welding, electronic circuitry lab room (Exempt Rule (285(i)))
	Quonset building: warehousing space and robotic and electronic component assembly
	Quonset building: water jet CNC machine (Exempt Rule 285(I)(vi)(B)) and dust collector (not externally vented) (Exempt Rule 285(2)(f))

*The facility reported that the metal fabrication and welding equipment were moved off site in 2012.

The following is a summary of information obtained from the on-site inspection. Where applicable, compliance determinations are indicated for each special condition established in the PTI, organized by emission unit or flexible group.

During the pre-inspection meeting, Staff was informed that the paint booth operator left employment at the facility last year (2022) and the paint booth has not been operated since. The facility indicated that they will likely hire another operator, so no discussions were had about removing the booth or voiding the PTI. For the meantime, coating jobs are being outsourced.

Mannetron builds, sells, and uses rotational casting machines to create hollow cast parts of varying sizes. The rotocasting machine currently in use at the site is located in the main production area east of the offices, along with the polyurethane injection process equipment, internally vented airbrush coating equipment (**Exempt Rule 287(2)(c)**), and rows of workbenches.

The paint booth room contains a Binks paint booth. Although the unit has not been used in a while, the backside filter wall was equipped with a complete set of 20" filter squares. The facility reported that all spent filters and waste solvents are disposed of properly.

SC	Condition	COMPLIANT?
15	VOC emission rate from spray paint booth shall not exceed 8 pph nor 3 tpy	*
16	No visible emissions from booth	Yes
17	Applicant shall not use more than 20 gallons total of any lacquer enamel or thinner during a 15-hour weekly painting period	*
18	Applicant shall not operate booth unless all exhaust filters are in place and operating properly	Yes
19	Disposal of collected spent dry filters, waste solvents and waste coatings shall be performed in a manner which minimizes the introduction of air contaminants to the outer air	Yes
20	Exhaust gases from booth shall be discharged unobstructed vertically upwards to ambient air from a stack with an exit point not less than 25 feet above ground level	Yes
21	Applicant shall not use any coating, thinner, or enamel that contains dioctyl phthalate	*

Monitoring/Recordkeeping:

SC	Condition	COMPLIANT?
22	Applicant shall keep a separate record for each calendar month of the usage rate of each coating, lacquer, and thinner used in the spray paint booth. Shall keep record of the pounds of VOC per gallon of coating, lacquer and thinner, and the density of each coating, lacquer, and thinner. Keep on file for a period of at least two years and make available upon request.	NO

*Compliance with these permit conditions cannot be made at this time. These records were requested but never received. A Letter of Violation will be issued for failure to produce requested records.

The paint booth is not in compliance with PTI #461-93 requirements and state air use regulations at this time.

The facility has been utilizing exemptions from permitting for the following equipment and processes. These exemptions require the facility to keep and produce records when requested to demonstrate the applicability of the exemptions. Records were requested to demonstrate the extent to which the facility uses these processes, but no records were received. A Letter of Violation will be issued.

EXEMPTION RECORDS DUE:

EXEMPTION	Process/Equipment	RECORDS DUE	COMPLIANT?
290	Fiberglass layup operation	Demonstrate noncarcinogenic VOC compounds are not more than 1,000 lb per month or noncarcinogenic materials listed in R 336.1122(f) are not more than 500 lb per month for the most recent 2-year period -controlled or uncontrolled -Particulate emissions must be controlled by appropriate fabric filter collector or control system and operated properly	NO
287(a)	Silicone rubber material application	Demonstrate adhesive coating application rate is less than 2 gallons per day and emissions are released only to in-plant environment	NO

The facility also owns two separate buildings located across the street which are used for storage, robotic and electronic component assembly, CNC machines, and a dust collector that is not vented externally.

The facility is not in compliance with PTI #461-93 requirements and state air use regulations at this time.

NAME: Roche Fenaway

DATE: 9/21/23

SUPERVISOR: [Signature]