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

FACILITY: WPI - Welders & Presses, Inc.		SRN / ID: P0885
LOCATION: 27295 Luckino Drive, CHESTERFIELD		DISTRICT: Southeast Michigan
CITY: CHESTERFIELD		COUNTY: MACOMB
CONTACT: Shawn Hartman , Plant Manager		ACTIVITY DATE: 03/20/2019
STAFF: Sebastian Kallumkal	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Onsite Inspection		
RESOLVED COMPLAINTS:		

On Wednesday, March 20, 2019, I, Michigan Department of Environmental Quality-Air Quality Division staff, conducted a scheduled targeted inspection at WPI-Welders & Presses, Inc. located at 27295 Luckino Street, Chesterfield, Michigan. The purpose of the inspection was to determine facility's compliance with the Federal Clean Air Act; and Article II, Part 55, Air Pollution Control of Natural Resources and Environmental Protection Act, 1994 Public Act 451 and Permit to Install (PTI) No. 116-18A.

I arrived at the facility about 2:30 PM. At the facility, I met Mr. Shawn Hartman, Plant Manager and Reid Vandekerkhove, Electrical Manager. I introduced and identified myself and stated the purpose of my visit.

When I drove to the facility, I noticed that some of the stacks have rain caps on them. The rain caps would restrict the exhaust gas dispersions and may cause odor complaints. The gases from the processes are required to be exhausted unobstructed vertically upwards. During the inspection, I mentioned this issue to Shawn and he told me that most of the stacks are from processes which were conducted in that building previously. He agreed to look into it and offered to close all the stack which are not being used and remove rain caps from the those being used.

After the previous inspection in 2017, the facility was issued a violation notice for installing two electrocoating lines without obtaining permit to install. The coating usage in each coating line would be more than 200 gal (-water). PTI No. 116-18A was issued for the installation of the E-coating lines.

During the pre-inspection meeting, he informed me that the WPI is a Tier II supplier for the automotive industry. Their operations mainly involve welding of the automotive parts and electrocoating. They currently have two electrocoating lines.

The facility started the operations at this facility in November 2012. They installed and operated the first electrocoating line (EU-E-Coatline-01) in 2016. They installed and started operation of the second electrocoating line (EU-E-Coatline-02) in 2018. They have about 140 employees and operates 2 shifts (6:30 AM to 12 Midnight) per day, 5-6 days per week. The facility has no emergency generator, no cold cleaner, solvent wipe or paint spray booth. They may not install a burnoff oven to clean the E-coat racks.

The facility is looking into installing a diesel fired emergency generator. I informed him about the federal requirements including the EPA certification requirements to verify compliance with emission limits. (emailed the NSPS Subpart IIII, RICE MACT Subpart ZZZZ and AQD Permit to Install exemption booklet to Shawn on March 21).

The facility has about 90 resistance welding stations (30 robots, 60 manual) and 10 Mig welding cells (9 robots, 1 manual). Three of these welding cells are vented to the atmosphere. One of them is vented due to welding of stainless-steel parts which may contain chrome. They also use soft steel (108-110 material) parts. The other two vented because there were existing

exhausts in the area. The welding process is exempt from permit to install requirements pursuant to Rule 285(2)(i) which states, in part,

(2) The requirement of R 336.1201(1) to obtain a permit to install does not apply to any of the following:

Brazing, soldering, welding, or plasma coating equipment. (i)

PTI No. 116-18A: FG-E-Coatinglines

The facility has two identical electrocoating lines currently (EU-E-Coatline-01 and EU-E-Coatline-02). He told me they have not changed the coatings since the last inspection.

The electrocoating process in both lines consists of:

- vented (*) Alkaline cleaner Tank 1: vented (*) Alkaline Cleaner Tank 2: Water Rinse Tank 3: Water Rinse Tank 4: Non-acid pickling (Parts don't undergo this process) vented (*) Tank 5: Tank 6: Water Rinse Tank 7: Preconditioner Zinc Phosphate Tank 8: Water Rinse Tank 9: Tank 10 **Non-Chrome Sealer DI Water Rinse** Tank 11: Tank 12: **Drv off Station** Electrocoating (Epoxy cathodic coating, parts grounded, tank anodic) Tank 13:
- Tank 13: Water Rinse
- Tank 14: Water Rinse
- Tank 15: Water Rinse
- Tank 16: Water Rinse

(*) - exhaust fan on the sealing above these tanks, not connected directly

The coated parts are cured in a natural gas fired oven (3 MMBTU/hr for the first E-Coat Line). He informed me that the electrocoating tank is about 1200 gallons. The coating solution is 60% water. They add about 5 gallons resin and 1-gallon pigment to make up the lost solids twice per week. The rinse after electrocoating tank is filtered and the solids recycled to the coating tank and water is recycled to the rinse tank.

The VOC Content of the resin is about 0.61 lb/gal and the paste is about 0.06 lb/gal. The resultant VOC content is about 0.55 lb/gal which is in compliance with the 0.60 lb/gal (-water, as applied). Based on the calculations submitted, the highest combined monthly VOC emissions are about 0.6 tons for both lines. PTI No. 116.18A was issued on October 24, 2018. The seven months VOC emissions (September 2018 to February 2019) was about 2.64 tons. The annual VOC emission limit is13 tons per year.

The oven for electrocoating line (EU-E-Coatline-02) is 5 MMBT/hr. The facility has 3 boilers (750,000 BTU/hr, 2,000,000 BTU/hr, 3,980,000 BTU/Hr) to heat the tanks. The ovens and boilers appear to be exempt from permit to install requirement pursuant to Rule 285(2)(b)).

Conclusion: The facility appears to be in compliance with application air quality regulations including requirements of PTI No. 116-18A.

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