

DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION  
ACTIVITY REPORT: Self Initiated Inspection

U50170808642074

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: 10/17/2017
STAFF: Sebastian Kallumkal	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: Minor
SUBJECT: Onsite Inspection		
RESOLVED COMPLAINTS:		

On Tuesday, October 17, 2017, I conducted a self-initiated 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.

I arrived at the facility about 10:30 AM. At the facility, I met Mr. Shawn Hartman, Plant Manager. I introduced and identified myself and stated the purpose of my visit.

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. Recently they also started electrocoating of parts.

They started the operations at this facility in November 2012. They installed the electrocoating line in March 2016 and started operation in June 2016. 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.

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

The facility has one electrocoating line currently. The second line has been installed, but not operating yet. They may start production in this new line in November. The new line may use a different coating from BASF instead of Axalta (old line).

The electrocoating process consists of:

- Tank 1: Alkaline cleaner vented (\*)
- Tank 2: Alkaline Cleaner vented (\*)
- Tank 3: Water Rinse
- Tank 4: Water Rinse
- Tank 5: Non-acid pickling (Parts don't undergo this process) vented (\*)
- Tank 6: Water Rinse
- Tank 7: Conditioner
- Tank 8: Phosphate
- Tank 9: Water Rinse

Tank 10      Non-Chrome Sealer  
Tank 11:      DI Water Rinse  
Tank 12:      Electrocoating (Epoxy cathodic coating, parts grounded, tank anodic)  
Tank 13:      Water Rinse  
Tank 14:      Water Rinse  
Tank 15:      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). 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.

Mr. Hartman told me on 11/21/2017 that they use about 6800 gallons per year (prorated for 12 months of 2017) of Electrocoat (AquaEC 6000). When they start the new line, the usage would be about 750 gallons per month for the existing line and about 700 gallons in the second line.

He informed me, via email, that ECOAT 6100 is made up of 20% 2161 to 80% 2160 (620.2161 and 2160). The solid content alone for these coatings is about 34%. So, the coating usage per month per line is more than 200 gallons (-water). Both coating lines appear to be subject to R336.1201 and need to obtain a permit to install.

The oven for the new electrocoating line is 5MMBT/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)).

He explained that, in the near future, they may install a sand based burn-off oven to clean the parts. I recommended him to submit a permit to install application before he installs the oven.

Conclusion: The facility had installed two electrocoating lines prior to obtaining permit to install. Each coating lines use more than 200 gallons (-water) per month of coatings. A Violation Notice will be send to the facility to comply with the permit to install requirements.

NAME Sebastian Kallunki

DATE 12/7/17

SUPERVISOR Joyce