

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

N599538514

FACILITY: INDUSTRIAL METAL CLEANING		SRN / ID: N5995
LOCATION: 1165 N GATEWAY BLVD, MUSKEGON		DISTRICT: Grand Rapids
CITY: MUSKEGON		COUNTY: MUSKEGON
CONTACT: Phil Lynema, Production Supervisor		ACTIVITY DATE: 02/02/2017
STAFF: Chris Robinson	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MINOR
SUBJECT: The purpose of this inspection was to determine the facility's compliance status with PTI No. 396-96, PTI No. 88-11 and other applicable air quality rules and regulations.		
RESOLVED COMPLAINTS:		

AQD staff Chris Robinson (CR) was on-site to conduct a scheduled unannounced inspection on Thursday February 2, 2017. CR arrived at Industrial Metal Cleaning Corp. (IMCC) located at 1165 North Gateway Blvd., Muskegon, MI, at approximately 10:30 am and met with Phil Lynema, Production Supervisor and later with Ed Dombrowski, President. No odors or visible emissions were detected. CR presented Mr. Lynema with business cards and informed him that AQD was there to perform an inspection of the facility to determine compliance status with respect to PTI No. 396-96, PTI No. 88-11 and other applicable air rules and regulations. Mr. Lynema informed AQD that the only significant change that occurred since AQD last inspected the facility on 11/9/2010 was the installation of rack burn-off oven B05 in 2013 which is permitted under PTI No. 88-11.

Facility Description

IMCC utilizes several processes for cleaning and prepping metal components, primarily automotive, for use by other facilities. The processes utilized are burn-off ovens, media blasting, shot blasting, stripping, parts washing, pickling and vibratory finishing.

IMCC has five natural gas fired only rack burn-off ovens with different burn rates. Four (4) of the ovens are regulated under PTI No. 396-96 and one (1) of the ovens is regulated under PTI No. 88-11. Although these two permits have different conditions, IMCC operates and maintains all five burn-off ovens identically in a manner consistent to meet the requirements of both permits. The ovens are permitted as follows:

Equipment ID	Model No.	Serial No.	Primary Burner (BTU/hr)	Secondary Burner (Btu/hr)	Permit No.
B01	PTR-340	1145	200,000	200,000	396-96
B02	PTR-340	1602	200,000	200,000	
B03	PTR-391	3468	400,000	400,000	
B04	PRC-549	--	500,000	500,000	
B05 (EUBURNOFF)	PRT-549	4670	390,000	560,000	88-11

Compliance Evaluation

PTI No. 396-96 and 88-11

The facility's application for PTI No. 88-11 was submitted to AQD in 2011 with an incorrect SRN (N3260), which corresponds to IMCC's previous Ferrysburg, MI location which is now "Wylie Electric Motor Services". Wylie Electric Motor Services utilizes this building for welding and welder repairs. CR and Kaitlyn DeVries (KD) performed a brief inspection of this location on February 10, 2017 and verified that there were no burn-off ovens on-site. Based on discussions with Mr. Lynema and a records review, oven B05 was not relocated from IMCC's previous Ferrysburg MI, facility. It was installed "new" at their current location. PTI No. 88-11 has been re-assigned to SRN N5995.

Per discussions with Mr. Lynema the facility only uses the rack burn-off ovens to remove non-waste powder coat, e-coat, and automotive finishes from racks provided by their customers. All of the ovens are designed so that the primary burners will not ignite until the afterburner temperature reaches 1,400°F. At the time of this inspection the only oven operating was B04 which had an oven temperature of 585°F and an afterburner temperature of 1,550°F. All of the ovens are equipped with primary and secondary temperature monitoring devices to continuously monitor temperature. The facility continuously records temperature on circle charts (**Attachment A**) for both the primary oven and afterburner for each oven except for the B05 primary oven temperature. Production Orders (**Attachment B**) capture the B05 oven temperature data and are completed

manually throughout the duration of a burn. IMCC is in the process of installing a data recorder to continuously record oven temperature for oven B05.

Each oven is equipped with an interlock system that is designed to shut down the power to the primary burner if it detects an issue with the secondary burner. Thermocouples are calibrated on an as needed basis (**Attachments C & D**), which occurs more often than once per year as specified in their permit. During this inspection, site personnel were in the process of calibrating oven B04.

Ash generated in the ovens is swept using shovels, tarps and water as needed to keep dust to a minimum as specified by PTI No. 396-96 Special Condition No. 16.

The following records, which are attached to this report, were provided to AQD staff as required by PTI No. 88-11 Special Condition VI(1-4):

- 1) Circle Chart (Calibration Records) - **Attachment C** & January PM (Maintenance Records) - **Attachment D**
- 2) Circle Charts (Temperature Data) - **Attachment A** & Production Orders (Temperature Data) - **Attachment B**
- 3) January PM (Maintenance Records) - **Attachment D**
- 4) MSDS's (Chemical Composition records) - **Attachment E**

Permit No. 396-96 has no recordkeeping requirements for burn-off ovens B01, B02, B03 & B04. However, upon AQD request for temperature records for oven B05 as specified in PTI No. 88-11 special condition no. VI(2), the facility provided AQD with temperature records for burn-off ovens B01, B02, B04 and B05. These records indicate that the afterburner temperature for burn-off oven B01 was operated below 1,400°F on 1/31/2017 and burn-off oven B04 on 3/16/16, 5/6/16 and 12/22/16. Burn-off oven B04 operated for at least 24 hours with an afterburner temperature lower than 1,400°F on 5/6/2016. Records for burn-off ovens B02 and B05 indicate that afterburner temperatures are being maintained as required. CR followed up with Mr. Lynema, who confirmed the temperature issues and informed CR that IMCC adjusted the air to fuel ratio for burn-off oven B04 and B05.

AQD staff did not specifically measure the height or diameters of the stacks. However, visual inspections appear to reflect the measurements specified in permit No. 396-96 and 88-11.

Rule 201 Permit Exemptions

- Media Blasting

Media blasting or "Aluminum oxide blasting" is conducted inside a totally enclosed booth. Personnel with protective gear manually enter the booth and spray aluminum oxide grit onto the surface of metal components to remove rust and debris. This enclosure is vented into a dust collector which contains 12 filters and is vented to the in-plant environment. Although this process was not being utilized at the time of this inspection, it was powered-on with a dust collector differential pressure of 1.2 psig (2.8 psig prior to and 4 psig after the dust collector). According to Mr. Lynema, the filters are replaced as needed but approximately once per year. These units appear to be exempt under **Rule 285(2)(l)(vi)(B)**.

- Shot Blasting

The facility has four (4) electric Shot-blasting units which use "steel shot" to remove rust primarily. These units are connected to individual dust collectors that are vented to the in-plant environment. These units appear to be exempt under **Rule 285(2)(l)(vi)(B)**. This process was not operating at the time of this inspection.

- Stripping

The chemical stripping or acid wash line (CC1) is used to remove coatings from metal parts so that the parts can be re-coated at other facilities. The line consists of two tanks, a heated acid bath and a wash tank. The acid bath is heated using natural gas only. This process appears to be exempt under **Rule 285(2)(r)(iii)**. This process was not operating at the time of this inspection.

- Parts Washer

IMCC has a split unit that consists of a small totally enclosed media blaster connected to a parts washer. Either unit can operate independently or simultaneously. Small metal parts pass through the blaster which sprays aluminum oxide grit through multiple small nozzles automatically to remove debris. The parts exit the blaster by conveyor and then enter the parts washer. If needed the parts washer can be used to either wash or apply a rust inhibitor to components. The media blaster is connected to a dust collector that is vented to the in-plant environment and appears to be exempt under **Rule 285(2)(l)(vi)(B)**. The parts washer is also vented to the in-plant environment and appears to be exempt under **Rule 285(2)(r)(iv)**. Neither of these units were operating at

the time of this inspection.

- Pickling

The pickling line (CC3) is vented to the in-plant environment and is used to prep metal parts for coating or other metal treatment processes. This line consists of the following tanks/Chemicals:

10% Phosphoric Acid >>> Wash Tank >>> 10% Clean Phosphoric Acid >>> Neutralizer (99% Neutralizer and 1% water) >>> TQ201 rust inhibitor >>> 10% Phosphoric Acid

All of the tanks, with the exception of the wash tank are 2,000 gallons. None of the tanks are heated or agitated. The wash tank is a large open tank that site personnel enter physically to pressure wash components. The pickling line appears to be exempt under **Rule 285(2)(r)(ii)**. The facility was in the process of cleaning the tanks during this inspection.

- Vibratory Finish

The facility has one (1) electric vibratory finisher equipped with an autoloader and vented to the in-plant environment. This machine removes burrs and enhances the surface finish of metal components. This unit appears to be exempt under **Rule 285(2)(l)(vi)(B)**. This unit was not operating at the time of this inspection.

- Fabrication

The facility has a fabrication/maintenance area. There are no processes or equipment in this area that are subject to any air quality rules or regulations.

Compliance Determination

Temperature records for burn-off ovens B01 and B04 indicate that the afterburners were operated at temperatures below 1,400°F. Therefore, IMCC was not in compliance with PTI No. 396-96 Special Condition No. 15, requiring a minimum afterburner operating temperature of 1,400°F, and Rule 910. Rule 910 requires an air cleaning device to be installed, maintained, and operated in a satisfactory manner. IMCC did not operate burn-off ovens B01 and B04 in a satisfactory manner. A violation notice will be issued.

List of Attachments

Attachment A - Circle Charts (Temperature Data Records)
Attachment B - Production Orders (Temperature Data Records)
Attachment C - Circle Charts (Calibration Data)
Attachment D - January PM (Maintenance Records)
Attachment E - MSDS's (Chemical Composition records)

NAME



DATE

2/28/2017

SUPERVISOR

