

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

A426530768

FACILITY: MICHIGAN SPRING AND STAMPING OF MUSKEGON, LLC		SRN / ID: A4265
LOCATION: 2700 WICKHAM DR, MUSKEGON		DISTRICT: Grand Rapids
CITY: MUSKEGON		COUNTY: MUSKEGON
CONTACT: Kim Mayberry , Environmental Coordinator		ACTIVITY DATE: 08/20/2015
STAFF: Kaitlyn DeVries	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: The purpose of this inspection was to determine the facility's compliance with Permit No. 731-83 and all other applicable Air Quality Rules and Regulations.		
RESOLVED COMPLAINTS:		

On August 20, 2015 AQD Staff Kaitlyn DeVries (KD) conducted an unannounced scheduled inspection of Michigan Spring and Stamping located at 2700 Wickham Dr. Muskegon, Michigan. The purpose of this inspection was to determine the facility's compliance with Permit No. 731-83 and all other applicable Air Quality Rules and Regulations.

No odors or visible emissions were observed in the areas surrounding the facility prior to entry. The DEQ Environmental Inspections: Rights and Responsibilities pamphlet was presented and briefly discussed with Kim Mayberry, Environmental Coordinator.

**Facility Description:**

Michigan Spring and Stamping (MSS) is a manufacturer of metal components for the automotive industry. MSS primarily manufactures a wide variety of springs, coils, and stamped assemblies. MSS uses various metals to produce these parts including stainless steel, nickel, ASTM 228, oil tempered silicon and other metals depending on the product's needs. The facility currently has one (1) permit (PTI No. 731-83) and utilizes multiple exemptions from permitting, under Rule 201.

**Compliance Evaluation:**

Most of the space within the facility is used for machining, bending, cutting, buffing, and other processes needed for creating the springs and coils. These processes either vent internally to the in plant environment, or vent to a dust collection system that utilizes a fabric filter. These processes are exempt under Rule 285 (I)(vi). Some of the springs proceed through ovens for hardening to relieve some of the stress on the coil. The facility utilizes many small inline ovens that heat-treat the parts immediately as they come off the production line. Others are fed into larger ovens, which are either electric or run from endothermic generators. MSS utilizes two (2) of the large endothermic ovens that operate at approximately 1600 °F. Neither oven was in production at the time of the inspection. At the time of the inspection, MSS was moving two (2) of the larger Lindberg ovens to a different location within the facility. KD was able to see ductwork being ran to connect the new location of the equipment to the ventilation lines for entry into the dust collectors. KD noted that MSS was using the equipment without a properly equipped ventilation system and could see fugitive particulate matter (PM) coming from the grinding operations. Ms. Mayberry stated this was indeed more PM than typically seen. At the time of the inspection, MSS had a roof window open to vent the fugitive emissions, but KD informed Ms. Mayberry that they should close the window since the grinding operations require a fabric filter (Rule 285(I)(vi)(C) if vented externally. MSS staff closed the window to contain the PM and prevent a slip hazard, since it had just started to rain.

Later in the inspection process, Ms. Mayberry and KD discussed the potential opacity issue that could also have come from venting the PM directly out of the facility, since PTI No. 731-83 Special Condition 10 is an opacity limit of 20%.

Some of the springs, coils, and other various parts need to be cleaned prior to heat treatment (oven) or finishing. PTI No. 731-83 is the permit for the finishing system. MSS utilizes a Zinc Phosphate solution, among others such as nitric acid, for clean treating some of the parts which is housed in the finishing room. The zinc phosphate bath has a hooded closed loop ventilation system that draws the emissions through a filter and then is pumped back into the in-plant environment. Per Ms. Mayberry, there have been no changes to this system and is thus compliant with Special Condition 11 in PTI No. 731-83.

Further yet, some of the parts proceed on to be painted. MSS operates two types of painting operations: manual coating and a dip and spin operation. MSS does not reclaim any of the paint except that of the dip and spin operations, as the residual paint stays within the barrel the dip basket is dipped in after the spinning is complete. The small manual spray booth is equipped with a properly functioning fabric filter.

Ms. Mayberry provided KD with the 2014 records for paint usage, as outlined in Rule 287(C), and VOC emission data for Rule 290. Please see attached for complete details. The paint usage records show a total of 339 gallons of paint used for the entire year; 100 gallons was used for the manual painting process, and 239 gallons for the dip and spin process. The monthly usage is tracked via purchase order. Per the purchase order supplied by Ms. Mayberry, the highest month was May, 2015 for the previous 12 months, where a total of 32 gallons was purchased for the dip and spin paint line. 50 Gallons was the largest amount purchased per month for the manual paint line.

The total facility wide VOC emissions for 2014 were 1.704975 tons; averaged out, this is below the 1000 lbs. per month to be exempt under Rule 290. Per Ms. Mayberry, when calculating the VOC emissions she assumes 100% VOC content to estimate a worst case scenario. The VOC emission data is calculated using the various solvents and oils as the emission units. Again, using purchase orders, the largest quantity purchased was for the Trim Oil 10. A total of 110 gallons (834 lbs) was purchased. This is below the 1000 lbs/month limit. Please reference the attached records and MSDS.

MSS also has several Crystal Clean parts cleaners that were closed and properly labeled. These are exempt under Rule 281 (h), and are regularly maintained by Crystal Clean.

**Compliance Determination:**

Based on the information provided, it appears that Michigan Spring and Stamping was in compliance with PTI No. 731-83 and other applicable air pollution rules and regulations at the time of the inspection.

NAME



DATE

8.28.15

SUPERVISOR

PAB