

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

B663325661

FACILITY: AMERICAN AXLE & MANUFACTURING, INC		SRN / ID: B6633
LOCATION: ONE MANUFACTURING DR, THREE RIVERS		DISTRICT: Kalamazoo
CITY: THREE RIVERS		COUNTY: SAINT JOSEPH
CONTACT: Tyson Lahmeyer, Safety and Environmental Manager		ACTIVITY DATE: 06/19/2014
STAFF: Dennis Dunlap	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Scheduled inspection.		
RESOLVED COMPLAINTS:		

This was an unannounced inspection. The inspection brochure was handed out. Mr. Todd Lahmeyer is the contact person.

The facility makes axles and related parts for trucks such as ring and pinion gears.

Axles and other metal parts are cleaned in washers with Bonderite. This does not contain VOC and this is exempt by Rule 281(e). There are various washers around the facility. The stacks for the washers emit to the outside air.

There is a phosphate process for axles that uses LT-10. It is operated at about 150 degrees. This a 290 group and monthly records are kept. It is estimated that 2% of the LT-10 is lost out of the stack and this is used to calculate emissions. The LT-10 contains manganese dihydrogen phosphate (10-30 %), phosphoric acid (1-5 %), and manganese nitrate (1-5 %). The specific manganese compounds do not have a screening level, although manganese compounds in general have an ITSL of 0.3. In this case the Rule 290 emission limit is 20 pounds per month. The calculation is as follows: 35% by weight of the LT-10 contains manganese compounds. Of this, 0.082% of this is manganese. For May of 2014 it was estimated that stack emissions of LT-10 was 393 pounds. $393 \times .35 = 137.5 \times 0.082 = 11.3$ pounds of manganese. This was the highest monthly total for LT-10 and it appears that they are in compliance with Rule 290.

The Williams Line consists of 4 single row carburizer furnaces, 2 draw furnaces and 2 endothermic generators. The sequence is: dry cut machining; carburizer furnace; quench; washer; draw furnace; hard machine; lap; test; wash; assembly. The stacks for the draw furnaces were viewed on the roof. Some visible emissions were observed. This was not constant and was less than 20% opacity. Staff at the facility thought that the emissions were due to burner adjustment and was going to check the settings. It also may be due to quenching. Emissions pass through a flare before going out the stack. Quench oil usage is tracked monthly in a Rule 290 group. For this recordkeeping it is assumed a loss of 5% with a 50% flare control efficiency. Quench oil is recycled.

The AFC line consists of 2 furnaces with 1 draw furnace and an endothermic generator. The sequence is the same as that for the Williams line. No visible emissions were seen on the roof. Quench oil usage is tracked here in a Rule 290 group combined with the Williams line.

The CUSW line is new installed under permit 48-12B. It consists of a pre-wash and post-wash operation, 4 heat treat furnaces (one being added), IQ quench, one endothermic generator and flame curtains. The sequence is: prewash; pre-heat; quench; post-wash; draw furnace; cooling. According to the permit they track metal processed per month and VOC emissions each month. The VOC emission factor is 0.52 pounds of VOC/ton of metal processed. They are in compliance with the material and VOC limits.

The boiler room has three natural gas-fired boilers. There is a 20 MMBtu Cleaver Brooks installed in 1996. This is subject to the NSPS. Natural gas usage is tracked. There are two other Wickes boilers installed in 1956 and 1957. There is a 400 gallon sulfuric acid tank.

There is an existing permit for a wastewater scrubber, 434-79. The scrubber is no longer used. In the wastewater building there is a holding tank for process water. This is filtered. Wastewater with 30 % oil is hauled away. Some goes to the city sewer.

There is a building that was used for a coal-fired boiler that is no longer in operation. The stack for the boiler is still there.

There is a cooling tower system for water.

Inside the facility there is an old Detroit diesel fire pump and an old emergency generator.

One cold cleaner was seen. The lid was closed.

Axles are painted with a low VOC coating. This tracked under Rule 290. VOC emissions appear to be under 200 lbs/month.

The methanol tank has not been in use since July of 2013. The maintenance spray booth is out of service.

NAME Dennis Dunlap

DATE 7/10/14

SUPERVISOR MB 7/11/2014