

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

A617523145

FACILITY: Nexteer Automotive Corporation		SRN / ID: A6175
LOCATION: 3900 Holland Road, SAGINAW		DISTRICT: Saginaw Bay
CITY: SAGINAW		COUNTY: SAGINAW
CONTACT: Kim Bostek , Sr. Environmental Engineer		ACTIVITY DATE: 09/26/2013
STAFF: Benjamin Witkopp	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MAJOR
SUBJECT: Inspection of ROP source		
RESOLVED COMPLAINTS:		

Ben Witkopp of the Michigan Department of Environmental Quality - Air Quality Division (MDEQ-AQD) met with Kim Bostek and Dominic DeCarlo of Nexteer. The company was formerly Delphi Automotive Systems, LLC. The facility is covered by a Renewable Operating Permit (ROP) MI-ROP-A6175-2009. An administratively complete application for renewal was submitted on time.

The facility is basically engaged in forming and machining metal parts for the automotive industry. The emissions are generally handled by scrubbers or baghouses. A power plant is also located on site. It supplies process steam and heat to the facility. It does not generate electricity.

There are some source wide conditions in the ROP concerning the power plant. Basically it requires a coal sample to be taken each month to be analyzed for % sulfur and btu's per pound. Records checked indicated a typical btu content of 12,700 and 0.7 % coal. The company's coal contract requires the coal to be less than 1%. The coal suppliers indicated 13,559 btu and 0.9% sulfur. Adjusted to the standard 12,000 btu all samples are well below the 1% specified for the boilers. Additionally, the split sample taken during boiler stack testing in late February 2013 yielded 0.73% sulfur and 13,460 btu per pound.

Required records for virtually all equipment were then checked for 2013, to date, in the order found in the ROP. Currently pressure drops etc are required to be checked once per week with ranges specified either directly in the permit or in the Malfunction Abatement Plan (MAP).

BL05 is a bar mill blaster used to remove rust from steel stock. The required pressure drop across the scrubber is between 8 and 12 inches. Typically, the values were in the 10 to 10.5 range.

BL12 is a blaster used for deburring. A fabric filter is used as control. The pressure drop range specified in the MAP is 1 to 3 inches. Typically, it ranged from 1.75 to 2.5.

CG01 is slot grinding which removes excess metal from parts. The pressure drop range specified in the MAP is 1 to 4.5 inches. The drop was usually well within range with only a few readings on the lower end.

CG02 is comprised of lathes using a scrubber as control. The MAP required range is 8 to 12 for the pressure drop. The lowest value found in the records was 8.

CG03 is a group of grinding stations controlled by a scrubber. Once again, the MAP required range is 8 to 12. It was found to usually be in the 8.5 to 9 range.

CG07 is another group of grinding stations with scrubber controls. Records indicated the pressure drops were within the 8 to 12 inch range specified in the MAP.

CG16 is a group of cage grinders with a scrubber for control. The MAP specified pressure drop range is 6 to 11. The drop was typically 7 according to records.

MI14 is the pickle house acid baths. Coiled steel is immersed in a solution of sulfuric acid at approximately 10 percent strength. Emissions are controlled by a scrubber. Pressure drop range is 0.5 to 2 inches and a flow of 60 to 80 gpm for flow as specified in the MAP. Records indicated a typical pressure drop of 1 and the lowest flow was 60.7 gpm.

PC07 is a phosphate coating system equipped with six scrubbers. The MAP specified range for pressure drop was 0.5 to 3 inches. One scrubber showed problems starting the week of April 8 where the pressure drop was 4. A work order was issued. The week of April 15 it was 3.6 and the problem was indicated to be media related. The week of April 22 it was 3.7 and the media was changed. The first week of May the actual problem was found to be the screens leading to the gauge.

PC08 is a phosphate coating system equipped with 4 scrubbers. Scrubbers C & E range is specified in the MAP as 0 to 2.5 inches while that for B & D is 0 to 1.5 inches. The week of April 15 a pressure drop of 4 was recorded for C and 2.5 on D.

PC09 is a phosphate coating system with scrubber control. The MAP has a pressure drop range of 1.5 to 2 inches and a flow of 1 to 2 gpm. The unit operated within range for 2013.

BR02 is a 77 MM BTU per hr gas fired boiler. The NOx limit is 39.4 tpy based on a 12 month rolling time period. Records indicated for the latest 12 month period 13.5 tpy were emitted. Glancing at the latest 2 months and estimating the emission on a 12 month rolling time frame indicated the value presented was incorrect. Further examination found the company was using an emission factor of 140 in each month's calculation but then using 190 when the total was calculated. In actuality there is no need for any emission factor in the total as the total should just be the summation of the latest 12 months. The emission factors being used were from various Michigan Air Emission Reporting System (MAERS) years. In 2006 the latest factor was 100 and this wasn't used at all by the company in the records. I then pointed out the ROP required a stack test, the company paid for a stack test and has the results. They could just use the stack test results proportioned to gas usage in their calculations. The good facet of the situation is that the emissions based on the records at hand are still well below permit limits.

FGBL91 is comprised of BL04 and BL11 which are blasters controlled by fabric filters. The range specified in the MAP for BL04 is 0 to 6 while for 11 it is 1 to 3. BL04 was typically in the 2 to 4 range while 11 was 1.5 to 3.

FGCG92 is a group of grinders controlled by a venturi scrubber. The pressure drop range specified in the MAP is 8 to 12 inches. Basically, for the month of January 2013 records showed the unit operating out of range. Each week something else was tried or checked on the unit. Eventually it was determined the gauge was at fault. When it was replaced with a new gauge the readings were within range. It does not seem it should take one month to determine the gauge was faulty. This was reported as a deviation for the first half of 2013.

FGBR90 is a group of two coal fired boilers, 5 & 6, which are rated as 220 MMBTU/hr. The percent sulfur was in compliance as previously discussed in the source wide conditions. The particulate emission rates were well below the permitted value of 0.30 pounds per 1,000 pounds of stack gas at 0.0035 and 0.0037 respectively. The control system of multiple cyclones with flyash reinjection and baghouse in series appears to be quite effective in controlling particulate and subsequently, opacity.

FGCF05/15 is a pair of carburizing furnaces using quench oil. Oil usage is limited to 1,760 gallons per month. August of 2012 had the highest usage at 1,759 gallons which is just below the limit.

FGMI90 is comprised of plastic granulation systems. The units are not run very often. When they do run the pressure drops across the baghouses are typically in the 1.5 to 2 range which is within the 0 to 3 inches specified in the MAP.

FGCF17/18/19 is comprised of two carburizing furnaces and one rehardener. Quench oil usage is limited to 3,180 gallons per month. The highest usage in 2012 was 1,400 gallons while in 2013 the highest was 2,100 gallons.

Sources which could use rule 287c are very few in number and basically consist of some inconsequential maintenance painting.

There are quite a few sources which could use rule 290 but only a handful which employ control devices. Three, DV420cc-cd, DV420cn-co, and DV541a-g, were picked at random and records were

checked. The highest emissions were 300 pounds per month as opposed to the 500 pounds allowed by 290 a ii.

We then went to Plant 4 to check pressure drops under current operating conditions for CG07, CG16, PC07, and PC08. CG 07 had a pressure drop of 12 which is in range. CG16 had a pressure drop of 7 which is in range. PC07 has 6 fume scrubbers in which the pressure drops must currently be manually checked at roof top level with a portable manometer. The scrubbers are numbered C1 through C6. The pressure drops were C1 - 2.1, C2 - 2, C3 - 2.7, C4 - 0.8, C5 - 0.8, and C6 - 1.1. On PC08 the four scrubbers B, C, D, and E had pressure drops of 1, 1.1, 0.6, and 1.7 respectively. In checking the flow indicator devices on B and D there are two flow lines for each unit. On each unit one line was shut off. However, the entire scrubber can be fed with only one line open. On B one of the flow indicators didn't even have a needle indicator present on the dial. On unit D the indicator was reading zero though water was flowing.

A violation notice will be sent for the incorrect calculations on boiler 2. The issue with the existing flow indicators on PC08 units B and D will also be cited.

In the submittal for the ROP renewal, the company was requesting a change from weekly readings of pressure drops to bi-weekly. Consideration will be given to the request. However, quite a number of units at the site have conditions requiring "a device to indicate if liquid is flowing into the scrubber." As shown above for PC08, the facility has problems with this conditions even when the devices are present. The facility will be asked to reassess the entire MAP making sure the pressure drop ranges are evaluated for effective control of current operations as well as installing liquid flow indicators and establishing appropriate ranges.

NAME B. Zithopp

DATE 9-30-13 SUPERVISOR C. Ware