

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

A617531415

FACILITY: Nexteer Automotive Corporation		SRN / ID: A6175
LOCATION: 3900 Holland Road, SAGINAW		DISTRICT: Saginaw Bay
CITY: SAGINAW		COUNTY: SAGINAW
CONTACT: Dominic DeCarlo , Facilities and Environmental Engineer		ACTIVITY DATE: 08/13/2015
STAFF: Benjamin Witkopp	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Inspection of Nexteer - ROP-A6175-2014		
RESOLVED COMPLAINTS:		

Ben Witkopp of the Michigan Department of Environmental Quality - Air Quality Division (MDEQ-AQD) met with Dominic DeCarlo of Nexteer. The facility is covered by a Renewable Operating Permit (ROP) MI-ROP-A6175-2014. The ROP was issued nearly one year ago. Since then, the facility had additional permitting activity which allows for the conversion of coal burning boilers 5 and 6 to burn natural gas. Also, as part of that permit action, boiler 4 will be decommissioned by December 31, 2015 though it is still operational at this point.

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. The facility is still considered a major source due to the continued existence of boiler 4. Its purpose is to act as an emergency backup in case the conversion to gas on other boilers does not go as planned.

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. It should be noted the facility no longer has any coal on site. The bunkers were empty as was the coal yard.

Required records for virtually all equipment were then checked for 2015, to date, in the order found in the ROP. Currently pressure drops etc are required to be checked 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 8.5 and 11.5 inches. Flow should be 410 gpm minimum. Typically, the values were in the 10 to 11 range and 450 gpm..

BL12 is a blaster used for deburring. A fabric filter is used as control. The pressure drop range specified in the MAP is 1.2 to 2.8 inches. Typically, it ranged from 2.3 to 2.5.

CG01 is slot grinding which removes excess metal from parts. The pressure drop range specified in the MAP is 1 to 3.5 inches. The drop was usually about 1.2.

CG02 is comprised of lathes using a scrubber as control. The MAP required range is 8.5 to 11.5 for the pressure drop and 310 gpm for the minimum flow. The typical pressure drop was around 10 inches and the flow was about 410 gpm.

CG03 is a group of grinding stations controlled by a scrubber. Once again, the MAP required range is 8.5 to 11.5 while 710 gpm is the minimum flow. It was found to usually be around 10 inches and 750-760 gpm.

CG07 is another group of grinding stations with scrubber controls. Records indicated the pressure drops were within the 8.5 to 11.5 inch range specified in the MAP and were typically 10. The minimum flow required was 710 gpm and were actually found to be about 750 -760. The first three weeks of July presented challenges as the flow was found to be on the low side, from 694 to 713 gpm. Dominic said they found that screens on the pump needed flow to get over the screen. They removed the screen and the pump has been working fine ever since. This was done because other similar pumps did not have screens on them and have been fine for a long time. The pump is being watched.

CG15 is a group of grinders with a scrubber for control. The MAP specified pressure drop range is 8.5 to 11.5. The drop was typically ranging from 9 to 10. A minimum flow of 310 gpm is easily met as the flow was running about 450.

CG16 is a group of cage grinders with a scrubber for control. The MAP specified pressure drop range is 6.5 to 10.5. The drop was typically 8 - 8.5 according to records. A minimum flow of 310 gpm is met as the flow was between 375 and 400.

MI10 is a plastic granulating system controlled by a bag house. The pressure drop should be between 0.5 and 2.5 inches. It was typically 0.6 to 0.7.

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 0.7 to 1.8 inches and a flow of 63 to 77 gpm for flow as specified in the MAP. Records indicated a typical pressure drop of 1.4 and the flow was about 73 gpm.

PC07 is a phosphate coating system equipped with six scrubbers. The MAP specified amount for flow varies per unit. Unit 1 is 25 gpm, 2 is 45. Units 3 and 4 are both 35 while units 5 and 6 are 33. The flows were 55-60 for unit 1. 50-98gpm was the range for unit 2. A tight range of 36-40 was found for unit 3. 36-70 was the range for unit 4 while unit 5 was slightly smaller at 40-60. Unit 6 was typically 35-the low 40s. The specified pressure drop for the units is 0.7 to 2.8. It was usually 0.8. On unit 5 it did range up to over 2 inches.

PC08 is a phosphate coating system equipped with 4 scrubbers. Flow requirements vary per unit. Units 1 and 3 are both 15 gpm. Unit 2 is 25 while unit 4 is 35 gpm. Units 1 through 3 were usually in the mid 40's though unit 4 was in the 60's. The specified pressure drop range for the units is 0.2 - 2.3. Unit 1 pressure drop was 1 while units 2 and 3 were 0.8. Unit 4 was 2.2

PC09 is a phosphate coating system with scrubber control. The MAP has a pressure drop range of 1.6 to 1.9 inches and a flow of 78 to 92 gpm. The unit operated at about 1.8 inches and 90 gpm.

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 through July, only 4.3 tpy were emitted. A previous inspection in 2013, found the company was using an emission factor of 140 in each month's calculation. The factor used in the Michigan Air Emissions Reporting System (MAERS) uses 100 and this is now used by the company in the records. The ROP required a stack test, the company paid for a stack test and has the results. As an alternative they could just use the stack test results proportioned to gas usage in the calculations but either method is sufficient. The emissions based on the records at hand are well below permit limits. The boiler also has a usage limit on natural gas of 375 MMscf per 12 month rolling time period. Records revealed only 86,043 Mscf were actually consumed.

BR03 is a natural gas fired boiler having only NOx limits and a stack testing requirement. Testing had already been conducted on January 16, 2014 and the unit failed. A permit revision was sought to slightly increase allowed emissions and permit 99-13A was issued. Subsequent testing for the unit's emissions passing the test. However, due to the failed stack test, the AQD and the company entered into consent order 60-2014 which was effective 1-6-15. A penalty of \$15,540 was paid by the company. A potential stipulated penalty of \$5,000 is contained in the consent order for its duration as well as the requirement to do additional testing in the future.

BR04, as previously stated, is a coal fired boiler currently acting as an emergency standby in case conversion from coal to gas in other boilers does not proceed as planned. Though operational, there is no coal in the boiler's bunker or on site.

BR05 and BR06 are both coal fired boilers. Currently, both units are disabled as they are in the process of being converted to natural gas.

The air stripper is designated as STR99 and emissions were found to be 2.6E -3 tpy. This is well below the limit of 0.4 tpy of VOCs.

FGBL91 is comprised of BL04 and BL11 which are blasters controlled by fabric filters. The range specified in the MAP is 1.2 to 2.8 inches of pressure drop for unit 4 and 1 - 5 for unit 5. The values found were 2 for unit 4 and 3 - 3.5 for unit 5.

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.

FGCF05/15 is a pair of carburizing furnaces using quench oil. Oil usage is limited to 1,760 gallons per month. The highest purchased amount was 1,370 gallons which is just below the limit.

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 purchased amount was 294 gallons.

Sources which could use rule 287c are very few in number and basically consist of some inconsequential maintenance painting. Filters were found to be in place at the booths checked. The highest TOTAL was 143 gallons in July 2014. The limit is 200 gallons per month per booth. Individual sheets are tallied into a total for the FG so there is clearly no problem meeting the specified limit.

Cold cleaners checked randomly were found to have their covers in place and were equipped with proper operating instructions.

There are quite a few sources which could use rule 290. Two, DV420cc-cd, and DV720fg-fn, were picked at random and records were checked. The highest emissions were 313 and 334.8 pounds per month which is well below the Rule 290 limits.

New to the ROP are requirements for a number of emergency engines. Three different categories have been added due to the MACT for reciprocating internal combustion engines (RICE). Two categories concern compression ignition engines one for less than 500 hp and one for over 500. The third category is for spark ignition engines less than 500 hp. For the ease of maintaining tracking the company is treating all CI engines as if they are greater than 500 hp. The most hours run were logged by the pump house engine and that was only 22 hours. They also track usages due to bumping them on for maintenance checks etc. Walk around inspections are periodically conducted too. An outside firm is contracted to perform required maintenance and records were kept of the activity. The tracking etc., is also being done for the SI engines too.

We then went to Plant 4 to randomly check pressure drops and flows under current operating conditions. In comparison to previous inspections, when the devices had various issues, there were no problems whatsoever this time. It should be noted that after the last inspection, part of the violation notice requested the facility to reassess the entire malfunction abatement plan (MAP) making sure the pressure drop ranges were evaluated for effective control of current operations as well as install liquid flow indicators and establishing appropriate ranges. The issues pointed out during the last inspection were taken seriously and the MAP had been updated. The environmental and maintenance staff have successfully worked together to resolve the issues on control device operation.

The facility will soon be having stack testing done on the boilers as they are converted from coal to natural gas. At this point the facility is considered to be in compliance

NAME B. Zilch

DATE 9-11-15

SUPERVISOR C. [Signature]