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

A617550600

FACILITY: Nexteer Automotive Corporation		**SRN / ID:** A6175
LOCATION: 3900 Holland Road, SAGINAW		**DISTRICT:** Saginaw Bay
CITY: SAGINAW		**COUNTY:** SAGINAW
CONTACT: Alex Juhasz , Environmental Engineer		**ACTIVITY DATE:** 08/23/2019
STAFF: Benjamin Witkopp	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MAJOR
SUBJECT: Records review and inspection		
RESOLVED COMPLAINTS:		

Ben Witkopp of the Michigan Department of Environment, Great Lakes, and Energy - Air Quality Division (AQD) met with Alex Juhasz of Nexteer. Alex has been in the environmental area for only a few years. He was previously a facility engineer on site. The facility is covered by a Renewable Operating Permit (ROP) MI-ROP-A6175-2014b. Though a number of changes were facilitated by the "b" version of the ROP, no revision requests have been made since its approval.

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 steam to the facility. It does not generate electricity. The facility is considered a major source due to NOx emissions which primarily result from burning natural gas in the boilers. A malfunction abatement plan (MAP) is in place for a number of pieces of equipment.

Required records for virtually all equipment were then spot checked for 2018 and 2019, 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 MAP.

EUBR02 is a 77 MMbtu heat input gas fired boiler. A material limit of 375 MMCF is in place. Records showed 98,191 MCF on a 12 month rolling basis. NOx emission were only about 6 tons per year on a 12 month rolling time period. The limit is 39.4 tons

EUBR03 is a 150 MMbtu heat input gas fired boiler. A material limit of 2,500 MMCF exists. Records showed 266,381 MCF on a 12 month rolling basis.

EUBR05 is a 180 MMbtu heat input gas fired boiler. It has the same material limit as boiler 3, 2,500 MMCF. Records showed only 142,076 MCF on a 12 month rolling basis.

EUBR06 is a 180 MMbtu heat input gas fired boiler just like boiler 5 and it has the same material limit of 2,500 MMCF. Records showed only 151,772 MCF on a 12 month rolling basis.

BL05 was a bar mill blaster used to remove rust from steel stock. The unit was removed on November 2, 2018.

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 1.3 to 1.4 with a high of 1.6 and low of 1.2.

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 usualy about 1.6 to 1.7 with a high of 3 and low of 1.5.

CG02 is comprised of lathes using a scrubber as control. The MAP required range is 8.5 to 11.5 inches for the pressure drop and 310 gpm for the minimum flow. At one point, the pressure drop had dropped to around 8 inches and the flow went to 274 gpm. Repairs were made and the pressure drop was back to 8.6 and the flow was 310 gpm.

CG03 is a group of grinding stations controlled by a scrubber. Once again, the MAP required range is 8.5 to 11.5 inches while 710 gpm is the minimum flow. It was found to usually be around 10.7 inches of pressure drop and 720 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 9 - 10. The minimum flow required was 710 gpm and was actually found to be about 715.

CG15 is a group of grinders with a scrubber for control. The MAP specified pressure drop range is 8.5 to 11.5 inches. The drop was typically 9.5. A minimum flow of 310 gpm was easily met as the flow was running about 450 to 460 with a high of 471.

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 to 10 according to records. A minimum flow of 310 gpm was met as the flow was almost double, at 610.

MI10 is a plastic granulating system controlled by a bag house. The pressure drop should be between 0.5 and 2.5 inches. The unit had not been operated since January 2017. It is currently locked out.

MI14 was the pickle house acid baths. The operation has ceased, and the equipment has been removed.

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 for unit 1 were around 59 with a low of 34. 53 gpm was typical for unit 2. A flow in the 35 to 80 range was found for units 3 and 4. Unit 5 flow ranged from 40-50 while unit 6 was usually right around 60. The specified pressure drop for the units is 0.7 to 2.8. It was usually 0.8 to 1. The highest pressure drop was found on unit 5 at 1.31 inches.

PC08 is a phosphate coating system equipped with five scrubbers. Flow requirements vary per unit. Units 1 and 3 are both 15 gpm. Unit 2 is 25 while units 4 and 5 are 35 gpm. Unit 1 flow was 15 to 18 gpm. It did have an instance where a lower flow resulted in changing nozzles. Unit 3 was typically running at 39 gpm. Unit 2 was typically 55 gpm. Unit 4 was around 65 gpm while unit 5 was 84 gpm. The specified pressure drop range for the units is 0.2 - 2.3 inches. Unit 1 pressure drop was 0.6 while unit 2 was 0.8. Unit 3 had a range of 0.21 to 0.43. Unit 4 had a range of 1.5 to 2 while unit 5 had the highest range at 1.7 to 1.9 inches.

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 85 gpm. The unit operated at about 1.6 to 1.9 inches and 90 gpm.

The air stripper is designated as STR99 and the emission limit is 0.4 tpy of VOC's per year. Actual emissions are tiny fractions of the limit at only 1.88 pounds per year

FGBL91 was comprised of BL04 and BL11 which are blasters. Only BL11 remains as BL04 has been removed. Fabric filters are used as control for particulate emissions. The range specified in the MAP is 1.2 - 2.8 for unit 11. The values found were 1.4 - 2.5.

FGCF05/15 is a pair of carburizing furnaces using quench oil. Oil usage is limited to 1,760 gallons per month. The amounts are measured. Purchase records are not used. One unit was down for rebricking so overall usage declined. The lowest usage was in June of 2019 at 264 gallons while the highest was in October 2018 with 1,206 gallons. To provide some perspective, the 12 month rolling total was 8,144 gallons.

FGCF17/18/19 is comprised of two carburizing furnaces and one rehardener. Quench oil usage is limited to 3,180 gallons per month. Over 12 months the amount was 2,663 gallons which is below the amount allowed for a single month. Typical monthly usages for carb 1 was 96 gallons while carb 2 was half of that. The rehardener was usually about 98 gallons per month.

Sources which could use rule 287c are very few in number and basically consist of some inconsequential maintenance painting. Totals were less than 200 gallons per month. 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. The 12 month rolling total was only 1,078 gallons.

There are quite a few sources which use rule 290 permit exemption. The facility has records compiling the 290 emission units per plant and even provides a 12 month rolling total which, though not required, allows for a quick means to evaluate situations. Plants 1,3,6, and 7 had small amounts of emissions even when looking at 12 month totals. Plants 4 and 5 were higher than the others with 5 being the highest. Alex said there is a possibility of plant 4 washer operations moving to plant 5. The only potential issue found was in May 2019 for plant 4. 1,841.8 pounds of VOC came from the use of Quench-Kleen 5343. Overall 2,078 pounds of VOC were emitted that month from plant 4 washers. However, records showed several washers were being used that month, therefore, there was less than 1,000 pounds per unit. Additionally, several units are tracked separately. They are listed in the ROP along with the type of control device. Because of the control device presence, they are limited to less than 500 pounds of emissions per month per unit. Spot checking the units revealed no exceedances of the 500 pound per month limit. A different exemption was brought to the company's attention several years ago but the company maintained status quo as is their option. At this point, Alex is exploring the use of rule 281(2)(k) which exempts aqueous based parts

washers. The definition of "aqueous based parts washer" means a tank containing liquid with a volatile organic compound content of less than 5 %, by weight, and at a temperature below its boiling point that is used to spray, brush, flush, or immerse metallic and/or plastic objects for the purpose of cleaning or degreasing.

The ROP has requirements for a number of emergency engines. Three different categories exist 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 engines and that was less than the 50 hours allowed for emergency engines. It should be noted those hours were 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.

On September 24, 2019 I returned to the site to check the pressure drops and/or flows that were found to be on the low end of acceptable ranges during records review. The four units in question were all located in Plant 4.

BL12, a blaster used for deburring, was not running at the time and Alex confirmed it is used only occasionally.

CG02 consists of lathes using a scrubber as control. The unit was operating. The flow was 315 gpm and the pressure drop was 9.5. Both measurements were acceptable.

CG03, a group of grinding stations controlled by a scrubber, was operating. The pressure drop was 11.5 inches of water and the flow was 701 to 708 gpm. Both measurements are acceptable.

CG07 is a group of grinders with scrubber control. The unit was operating. The flow was 357 to 360 gpm and the pressure drop was 9. Both measurements were acceptable.

Issues were noticed at control devices several years ago. Actions were taken by the company in response. It appears both environmental and maintenance staff have continued to work together to ensure the control devices are operated properly. No issues were found during this inspection.

The facility is in compliance.

NAME B. Lathoff DATE 9-26-19 SUPERVISOR C Hare