

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

A936528022

FACILITY: Avon Automotive Cadillac Division		SRN / ID: A9365
LOCATION: 603 West Seventh St., CADILLAC		DISTRICT: Cadillac
CITY: CADILLAC		COUNTY: WEXFORD
CONTACT: Bill Somers, Facilities and Engineering Manager		ACTIVITY DATE: 12/10/2014
STAFF: Kurt Childs	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: 2015 FCE including site inspection and records review.		
RESOLVED COMPLAINTS:		

FULL COMPLIANCE EVALUATION**INTRODUCTION**

I conducted a Full Compliance Evaluation for this source including site inspection and records review. The purpose was to determine compliance with ROP number MI-ROP-A9365-2012 and the Air Pollution Control Rules. Prior to entering the facility I observed the various stacks from around the facility and did not observe any visible emissions or odors.

At the facility I met with Mr. Bill Somers and provided him with a copy of the Environmental Inspections brochure. We discussed recent and planned changes at the plant including the rebuilding of Mixer B, dust control on the small ingredients area, and future boiler upgrades. Mr. Somers also informed me he will be retiring in January and introduced me to Mr. Tom Haines who will be taking over his responsibilities.

Mixer B was due for a maintenance rebuild of the mixer rotors and was disassembled in 2014. The rotors were sent out to be rebuilt and were recently returned to the plant for installation. A description of this project that was provided by Avon Automotive is attached. At the time of the inspection the rebuild was nearly complete. With Mixer B down Mixer A has been operating around the clock. Each mixer is equipped with its own baghouse controlling emissions from mixing and a shared baghouse controlling emissions from the material loading area.

Rubber compounds charged into the mixers include small quantities of numerous ingredients that are stored in bins in the small ingredient area. These bins must be pre-loaded with materials, many of which are powders, and the ingredients must be removed from the bins to create the mixer charges. These activities generate small amounts of fugitive emissions inside the plant. Currently ingredient removal emissions are captured by filters attached to the carts used to gather the ingredients. Material loading is uncontrolled with fugitives discharged into the plant environment. Avon Automotive has plans to install a baghouse and duct system that would control emissions from bin loading.

Avon automotive previously contacted the AQD about permitting requirements for this process. The results of that review indicated that if the emissions are discharged from the control device inside the plant the rule 285(f) exemption for installation of a control device on an existing process could be applied. If the discharge is vented outside the plant the exemption could still apply but concerns about screening levels for some of the ingredients would have to be addressed in light of Rule 901. Also, Rule 910 for the proper operation of the control device would apply. At the time of the inspection the small ingredient control project had not gone forward yet due to the focus on the mixer repair.

Mr. Somers informed me that one of the two boilers at the plant may be replaced in the near future. The boilers are used to generate steam used in the autoclaves for the rubber curing process. One boiler is a 1973 Johnson natural gas fired boiler rated at 300 hp. The second boiler is a 1983 Johnson 400 hp boiler. The plan is to replace the 1973 boiler with a new 400 hp boiler and possibly relocate the boilers closer to the curing process area. Both boilers are existing large gas 1 boilers under the Boiler MACT, Part 63, Subpart DDDDD. Avon Automotive has submitted an initial notification for these boilers. The new boiler would be a New Large Gas 1 boiler under the boiler MACT. The compliance date for existing boilers is January 31, 2016 and upon startup for a new boiler. I informed Mr. Somers and Mr. Haines about Boiler MACT resources on the AQD website.

Our inspection of the processes at the plant followed the ROP and we reviewed records required by the ROP as follows.

EU-CTRPKNITLINE - one rubber hose process line that incorporates knit fiber reinforcements into the hose.

I.1 and 2 - VOC limits for the facility are 2000# per month and 10 tons per year based on a 12-month rolling time period. Avon submits monthly Records for the CTRPKNITLINE and review of these records has indicated continuous compliance with the limits. The current 12-month rolling average is 0.93 tons per year.

III.1. - All waste adhesion promoters/solvents are being stored and collected in closed containers.

The requirements in this section that apply to the catalytic oxidizer (C.O.) are identical to those for EULINE138 and FGCADBAR which also utilize the C.O. for control and therefore review of these requirements are not repeated in those

sections. Collection efficiency and destruction efficiency testing for processes connected to the C.O. is required every 5 years. The most recent test occurred on 2/28/2012.

III.2 - The adhesion promoter/solvent applicator hood exhaust is plumbed to the C.O. which was in operation at the time of the inspection. Each applicator is now equipped with a "knock out" box that eliminates mist from the exhaust stream. Process lines connected to the C.O. are interlocked to shut down if the C.O. inlet temperature drops below the specified limit.

III.3, V.1 - VOC destruction by the C.O. must be at least 95%, testing in 2010 demonstrated that efficiency to be 99%. The minimum catalyst bed inlet temperature is 650F. The facility monitors this temperature continuously and it was 661 F at the time of the inspection. The trend chart for the C.O. inlet and outlet temperatures indicates the temperatures remain very steady.

III.4, IV.1 - The C.O. is equipped with continuous temperature monitoring and recording equipment. This was operating at the time of the inspection. Records indicate that there was no time the C.O. was operating without this monitoring. Continuous records of the C.O. inlet and outlet temperatures are available on Avon's computer system from the most current week (records updated each Monday at 1AM for the previous week) back to the date of initial operation 7/31/03.

V.2. - The sacrificial bed on the C.O. is tested each year during the plant shut-down according to Mr. Somers. During the most recent maintenance shut-down the entire catalyst bed was replaced.

VI.1. - MSDS information at the facility is readily available for all chemicals used.

VI.2,3 - The VOC content, material usage, VOC emissions, and HAPS emissions are all being recorded monthly. Material use records generated at the point the materials are removed from storage are used to populate the throughput data spreadsheet (copy attached) which is used to generate the monthly report.

VI.4 - Information regarding the C.O. hours of operation is included on the throughput spreadsheet.

VII.1-4 - All reporting required of the facility (semi-annual, annual, deviations) has been completed in a timely manner with no deviations.

VIII.1 - Stack parameters have not changed since the previous inspection and appear correct.

IX.1 - A PM/MAP covering the C.O. was approved by AQD on 2-19-04 and the facility had a copy and was following the plan. A PM work order is generated each month for the C.O.

EU-Line138 - rubber hose process line no reinforcements or layers.

I.1 - VOC limits on this line are 8.4 tons per year based on a 12-month rolling time period. Monthly records indicate actual emissions are less than one ton per year, well below the VOC emission limit.

III.1- All waste adhesion promoters/solvents are being stored and collected in closed containers.

VI. Monitoring/Recordkeeping

Monitoring and recordkeeping requirements for EU-Line138 are identical to EU-CTRPKnitline and all records were available and up to date.

VIII.1 - Stack parameters have not changed since the previous inspection and appear correct.

EUMW1 - Microwave curing line for rubber hose.

I.1,2 - VOC emission limits for this process are 1.4 lb/hr and 4.6 tons per year based on a 12-month rolling time period. Current calculations of lb/hr were 0.19lb/hr and 0.26 tons per year based on a 12-month rolling.

II.1 - Material limit on EPDM for this line is 2.9 million pounds based on a 12-month rolling time period. The facility used 648,020 lbs. in the last 12 months.

II.2 - Material limit on NEOPRENE for this line is 691,156 pounds based on a 12-month rolling time period. EUMW1 did not use neoprene in the last 12 months.

III.1, VI.2 - No visible emissions were noted from this process. Records of monthly non-certified readings are maintained and available. Review of these records indicates no visible emissions were observed.

VI.1 - Records of the hours of operation, amount of rubber used, and VOC emissions calculations are being kept and recorded on the material throughput spreadsheet.

VII.1-3 - All reporting required by the facility for this process is being completed in a correct and timely manner.

VIII - Stack parameters have not changed since the previous inspection though the stacks have been replaced in kind this year.

EU-CUREOVEN - Gas fired cure oven for rubber parts.

I.1,2 - VOC emission limits for this process are 5.0 tons per year based on a 12-month rolling time period. Aggregate HAP emission limits for this process are 2.0 tons per year based on a 12-month rolling time period. 12 month rolling time period calculations of tons per year were 0.0544 tons per year and 0.0073 tons per year respectively for VOC and HAPs based on a 12-month rolling time period.

II.1,2,3 - Material usage limits for EPDM and ECO respectively are 1.8 million pounds and 100,000 pounds respectively. 256 lbs. of EPDM and 16,873 lbs. of ECO were used in the last 12 months.

VI.1,2 - All records were up to date and available.

VIII - Stack parameters have not changed since the previous inspection and appeared correct.

FGMIXERS - EUMIXER1 and EUMIXER2, 2 Rubber compound mixing processes.

As mentioned above, only Mixer A was operating at the time of the inspection. Material loading to the mixer is controlled by one large baghouse and particulate emissions from the drop mills of each mixer are controlled by two smaller baghouses. There is also one fan and large stack that used to serve to vent heat and fumes from the drop mill. This equipment is no longer in use and the hoods and ductwork have been removed. Each of the baghouses has a differential pressure monitor and are on regular PM programs. Differential pressure readings for the mixer A baghouse was 3.25" which is within the 1" - 4" operating range specified in the permit.

I.1-3 - Particulate emission limits are 0.01 pounds per 1000 lbs. exhaust gas, 1.22 pounds per hour, 5.3 tons per year. The pounds per 1000 lb emissions are determined through stack testing upon request. Current records show emission rates of 0.628 pounds per hour and 1.19 tons per year.

I.4-5 - VOC emission limits are 2.2 pounds per hour and 4.9 tons per year based on a 12-month rolling time period. Current records show an average emission rate of 0.741 pounds per hour and 1.43 tons per year.

III.1 - The Mixer A baghouse was in operation at the time of the inspection, no visible emissions were noted.

VI.1 - Records of the hours of operation, rubber processed, and VOC and Particulate emissions calculations are included in the throughput spreadsheet and were up to date and available on request.

VI.2 - No visible emissions were noted from this process. Records of monthly non-certified readings were available upon request.

VII.1-4 - All reporting required by the facility for this process is being completed in a correct and timely manner.

VIII.1 - Stack parameters have not changed since the previous inspection and appear correct.

IX.1 - A PM/MAP covering the baghouses was approved by AQD on 2-19-04 and the facility had a copy and was following the plan.

FGCADBAR - EU-CADBAR148, EU-CADBAR152, EU-CADBAR153, EU-CADBAR154, EU-CADBAR156, EU-CADBAR161

I.1-2 - VOC emissions from FGCADBAR are limited to 39.2 tons for the rubber curing operations and 35.4 tons for the surface preparation operations. Both of these limits are based on a 12-month rolling time period. Rubber curing operations for FGCADBAR are included in the throughput spreadsheet and the current records list VOC emissions at 22.5 tons for rubber curing. VOC emissions from surface preparation are entered directly on the monthly mass emissions record as these are not dependent on material (rubber compound) throughput. FGCADBAR surface preparation VOC emissions were 26.25 tons per year. Surface preparation adhesion promoter and solvent usage is tracked on the solvent usage logs maintained by Avon personnel staffing the crib (copy attached).

I.3 - Annual Toluene emissions from EU-CADBAR161 are limited to 9.0 tons based on a 12-month rolling time period. EU-CADBAR161 emissions are also tracked on the monthly mass emissions record, toluene emissions were 3.084 tons per year based on a 12-month rolling time period.

II.1-6 - This condition limits the material usage by this group. Throughput records indicate usage of each material was below the respective permit limits.

III.1 - All waste adhesion promoters/solvents are being stored and collected in closed containers

VI.1. - MSDS information at the facility is readily available for all chemicals used.

VI.2-5 - The VOC content, material usage, VOC emissions, Toluene content, and Toluene emissions are all being recorded monthly.

VII.1-4 - All reporting required by the facility for this process is being completed in a correct and timely manner.

VIII.1-11 - Stack parameters have not changed since the previous inspection and appear correct.

IX.1 - There has been no change in the land use or property classification of the facility

FG-AOS - FGCADBAR, EUCTRPKNITLINE

This set of conditions deals with an alternative operating scenario should the C.O. be unavailable but the facility wishes to continue production. According to Mr. Somers the C.O. has not been inoperable and the AOS has not been implemented. As previously indicated, the C.O. is currently wired with an interlock to shut down each associated workcenter in the event of a malfunction.

FGAUTOCLAVE - EUATOCCLAVE1 - 9

I.1-2 - VOC emissions from this group are limited to 2.6 pounds per hour and 8.6 tons per year based on a 12-month rolling time period. FGAUTOCLAVE VOC emissions are identified as "conventional" on the compound throughput spreadsheet. FGAUTOCLAVE VOC emissions were a monthly average of 2.60 pounds per hour and 0.429 tons per year based on a 12-month rolling time period.

VI.1 - Records of the process hours of operation, material processed, and VOC emissions are all being kept.

VII.1-3 - All reporting required by the facility for this process is being completed in a correct and timely manner.

VIII.1-14 - Stack parameters have not changed since the previous inspection and appear correct.

FG-LCM

I.1 - VOC emissions from this group are limited to 29.6 tons per year based on a 12-month rolling time period. VOC emissions were 5.14 tons per year based on a 12-month rolling time period.

II.1-6 - This condition limits the material usage by this group. Throughput records indicate usage of each material was below the permit limits.

III.1- All waste adhesion promoters/solvents are being stored and collected in closed containers

VI.1 - Records of the amount of material processed and VOC emissions are all being kept.

VII.1-3 - All reporting required by the facility for this process is being completed in a correct and timely manner.

VIII.1-12 - Stack parameters have not changed since the previous inspection and appear correct.

FG RULE 290

Emission units covered by this flex group include the print wheel cleaner and the pre/post cure oven. The print pan cleaner is used to clean the print wheels that label the hose during production. VOC emissions reported on the current monthly mass emissions record were 0.89 tons per year on a 12-month rolling time period. The cure oven is used for pre and post treatment of certain parts that are primarily cured in the autoclaves.

SUMMARY

The facility is in compliance with all emission and material use limits. All records were up to date, complete and available. Required reporting has been submitted complete and in a timely manner. It appears that the facility is currently in compliance with ROP No. MI-ROP-A9365-2012 and the Air Pollution Control rules.

NAME 

DATE 12-15-14

SUPERVISOR 