

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

N698932634

FACILITY: AVL POWERTRAIN ENGINEERING		SRN / ID: N6989
LOCATION: 1801 E ELLSWORTH RD, ANN ARBOR		DISTRICT: Jackson
CITY: ANN ARBOR		COUNTY: WASHTENAW
CONTACT: Steve Plewa , EH&S/ Quality Coordinator		ACTIVITY DATE: 12/17/2015
STAFF: Zachary Durham	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Scheduled, announced inspection of MI-ROP-N6989-2014.		
RESOLVED COMPLAINTS:		

**Contact**

Steve Plewa  
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(734)446-8305

**Purpose**

Diane Kavanaugh Vetrot and I arrived at AVL Powertrain at around 9:00am on Thursday, December 17, 2015. We met with Steve Plewa, EHS/Quality Manager during this scheduled, announced inspection of facilities and equipment listed in ROP no. MI-ROP-N6989-2014 issued to AVL Powertrain Engineering, Inc. The purpose of the inspection was to determine AVL's compliance with the federal and state applicable requirements, including Act 451, Part 55, Air Pollution Control regulations and conditions of their Renewable Operating Permit (ROP). The site inspection occurred throughout the building housing the test cells and the grounds outside where the underground storage tanks (UST) are located.

**Background**

AVL Powertrain is an engine and transmission testing facility that has capabilities of using gasoline, diesel or natural gas in its test cells. They are minor for all pollutants except for carbon monoxide (CO), which has a facility-wide potential to emit (PTE) of greater than 100 tons.

Their ROP was most recently renewed in 2014 by Diane Kavanaugh Vetrot and includes three flexible groups; these include groups for the test cells, cold cleaners, and the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Gasoline Dispensing Facilities (GDF) at an area source. The NESHAP for GDF is a federal regulation that outlines the Maximum Achievable Control Technology (MACT) standards for this industry, which the State of Michigan has not taken delegation for. AVL's regulation as a GDF subject facility maintains that they shall track gasoline throughput from their USTs.

They have 20 test sites and 18 exhaust stacks. Their ROP identifies test cells numbered 8-27. Seven other test cells are located in their Plymouth location and are numbered 1-7. Steve indicated that each test cell has its own continuous opacity monitor (COM) for tracking the visible emissions of particulate matter while using diesel fuel. They have two cold cleaners on site for washing parts and tools.

This facility has historically been well below its permitted limits and was last inspected by Diane in 2013. Their ROP submittals have been timely and do not indicate any deviations within the past year. Furthermore, their MAERS report demonstrates emissions far below those permitted.

**Compliance Evaluation****FGTESTCELLS**

Records indicate that all monitoring and record keeping requirements including monthly fuel use, uncontrolled gasoline, 12-month rolling NOx, CO, lead, and 1,3-butadiene emissions (see attached) are substantially below their permitted levels. MAERS data kept on site includes calculations for gas and diesel because natural gas has not been used since 2013. Review of the data shows for the last 12 months emissions are as follows: NOx=4.52 tons, CO = 5.61 tons, lead = 0.00009702 tons, and 1,3 Butadiene = 0.002413 tons. The actual permitted levels are 91.2 tons NOx, 127.5 tons CO, 0.6 tons lead, and 0.063 tons 1,3-butadiene.

These low emissions are the result of very low fuel use; well below the material limits set forth in the ROP. Total

diesel use this year amounts to 30,840 gallons, which when combined with 1,721 gallons of gasoline (tracked as uncontrolled), is below the 392,692 gallon limit. Gasoline is all tracked as uncontrolled, which is not a problem because the facility is so far below their permit limit. Steve indicated that most equipment is controlled via an oxidizer and can change his tracking to reflect controlled vs. uncontrolled should his gasoline throughput increase.

#### FGCOLDCLEANERS

They have two cold cleaners on site that were observed to be closed at the time of inspection. The MSDS (attached) appears to adhere to the material limit as not containing halogenated compounds.

#### FGGDFMACT

This is the flexible group for an area source subject to the GDF NESHAP in 40 CFR 63 Subpart CCCCCC (6C). The facility has demonstrated that their monthly throughput of gasoline is well below 10,000 gallons. I informed the facility that this information must also be made to EPA upon request.

#### Summary

After arriving at the facility Diane and I sat down in a conference room with Steve to discuss what we expected from our visit. I provided Steve with a copy of the Environmental Inspections brochure and Boiler MACT card. We discussed the conditions of the permit and then took a tour of the facilities and surrounding property. During our tour we only observed one test cell running, test cell 13, which was conducting a test run on a single cylinder engine for research purposes.

We entered the test room which contained the testing sites for cells 15, 16 and 17, none of which were equipped to run at the time. Steve showed us the digital AVL Fuel Mass Flow Meter and a backup analog meter for tracking fuel use to each cell. On our way out to the USTs, Steve also showed us the Veeder-Root system for tracking the tank level in each UST. He informed us that the sensors are checked quarterly and are reported to other divisions of the DEQ.

The UST area has a truck unloading area with spill containment built into the concrete pad. Steve indicated that at the time of a delivery, the trucks hook up to the appropriate tank to be filled and are equipped with their own vapor recovery units in order to prevent vapor releases and maintain safety.

From there, we walked around the building and observed several of the stacks from the outside of the building. No visible emissions were observed. We then headed back inside and to a mid-level floor that has roof access. This area was directly over several test cells and air inlets and exhausts were labelled for each cell.

Finally, we proceeded back to the conference room and closed with a wrap up discussion where I requested the necessary record keeping documents. I observed the electronic document he keeps on his computer and asked that he send me a copy. I also requested the MSDS for solution used in the cold cleaners. Having completed the inspection, Diane and I left at around 10:15am.

#### Compliance Status and Recommendations

I have determined that AVL Powertrain is in substantial compliance with all State of Michigan and Federal air regulations and conditions in their ROP.

I recommend that this facility maintain its current inspection schedule of every other year for major sources in the Title V ROP program.

NAME

Jack Durban

DATE

12/23/15

SUPERVISOR

[Signature]