

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

N698955493

FACILITY: AVL POWERTRAIN ENGINEERING		SRN / ID: N6989
LOCATION: 1801 E ELLSWORTH RD, ANN ARBOR		DISTRICT: Jackson
CITY: ANN ARBOR		COUNTY: WASHTENAW
CONTACT: Steve Plewa , Environmental Health and Safety/Facilities Manager		ACTIVITY DATE: 09/29/2020
STAFF: Mike Kovalchick	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MAJOR
SUBJECT: Announced Inspection. Excess opacity observed coming from an engine test cell.		
RESOLVED COMPLAINTS:		

Major / ROP Subject Source. Full Compliance Evaluation (FCE) and Partial Compliance Inspections (PCEs) SRN N6989

Contact

Steve Plewa EHS & Facilities Manager (steve.plewa@avl.com) ph. 734 446 8305

Address: AVL NA Corporate Services, 47603 Halyard Drive, Plymouth, MI 48170

Purpose

On September 29, 2020, I conducted an announced compliance inspection of AVL Powertrain Engineering (Company) located in Ann Arbor, Michigan (Washtenaw County) at 1801 E. Ellsworth Road. The purpose of the inspection was to determine the facility's compliance status with applicable federal and state air pollution regulations, particularly Michigan Act 451, Part 55, Air Pollution Control Act and administrative rules, and the conditions of the Company's Renewable Operating Permit (ROP) number MI-ROP-N6989-2020, issued on July 21, 2020. This facility was last inspected on April 2, 2018 and found to be in compliance.

Background

This facility houses twenty (20) different engine test cells, identified starting from #8 through #27. (Note: During inspection, 18 are currently active.) The numbering reflects seven (7) other test cells located at their Plymouth, MI location. This facility tests a host of vehicle components, from single cylinder test engines through large diesel semi-truck engines and all other powertrain-related equipment.

The Company has the capability to use gasoline, diesel, and natural gas in their test cells, though they have not used natural gas in some years. They are minor for all criteria pollutants except for carbon monoxide (CO), which is listed in the ROP as having an emission limit that requires a Title V ROP permit. Historically, emissions have been well below permitted limits.

The throughput of fuel requires this facility to comply with provisions contained in 40 CFR Part 63, Subpart CCCCC for Nation Emission Standards for Hazardous Air Pollutants (NESHAP) at Gasoline Dispensing Facilities (GDF). This facility is an area source of HAP. The State of Michigan does not have delegation of this regulation.

Review of MAERS report for 2019 showed the following:

48 Tons of CO. 13 Tons of NOx. 3 Tons of VOC. (All emissions information shows compliance.)

Compliance Evaluation

FGTESTCELLS (Non-Compliant)

This flexible group (FG) is the section of the ROP that contains conditions for all 20 test cells. Attached is a spreadsheet of 12-month rolling emissions and fuel use. Fuel use records for diesel, gasoline, and natural gas are used to calculate facility emissions. Aggregate gasoline and diesel use are limited to 392,692 gallons per 12-month rolling time period. Gasoline is further limited to total yearly use of 150,000 gallons and 34,500 gallons of uncontrolled gasoline use. 12-month rolling totals for diesel and gasoline are at 102,028 gallons. Total gasoline usage was 45,773 gallons. Total uncontrolled gasoline usage was 19,515 gallons through August 2020. Natural gas has not been used in the last 12 months in engine test cells. See attached records.

The ROP requires opacity from the engine test cells to not exceed 20%. During the inspection, there was a 30-minute time period where excess opacity was observed coming from a stack on the NW side of the building

associated with engine test cell 17. (9 to 9:30 am. Smoke disappeared around 9:30.) Opacity was estimated to about 35%. See attached photo. Video was also taken to document this. The test cell was being used to test a military diesel engine over a 400-hour time period. During this time period, the engine is put under various amounts of load resulting in periods of opacity during periods of higher load.

FGCOLDCLEANERS

The facility still maintains two cold cleaners in which they use mineral spirits. No halogenated solvents are used in this equipment. A total of 84 gallons was reported during 2019.

FGGDFMACT

This is the FG that describes the requirements under NESHAP CCCCCC for GDF area sources. There are three tanks identified as emission units under this part, two of which are sectioned tanks. These three existing tanks were installed on 4/14/2002 and are listed as follows: EUTANK1 – 19,000 gallon capacity, EUTANK2/3 – 7,500 and 11,500 gallon capacity, and EUTANK4/5 – 11,500 and 7,500 gallon capacity. The tanks are equipped with a Veeder Root system for tracking tank levels. Monthly fuel in August for EUTANK2 exceeded 10,000 gallons and thus exceeded the threshold set in 40 CFR 63.11116(b) and Special Condition VI.1 of this FG. This triggers additional requirements under NESHAP CCCCCC. In particular, requiring that the loading fill pipe be located near the bottom of the tank so that it is generally submerged when the tank is being filled. The Company verified on 9/29 this this tank meets the additional requirements under NESHAP CCCCCC.

Compliance Determination

After on-site inspection and review of necessary record keeping, I have determined AVL to be in compliance with State of Michigan and federal air quality rules and regulations and MI-ROP-N6989-2020 except for the general opacity provision of 20% The Company will be sent a Violation Notice (VN) and will be given 21 days to respond.

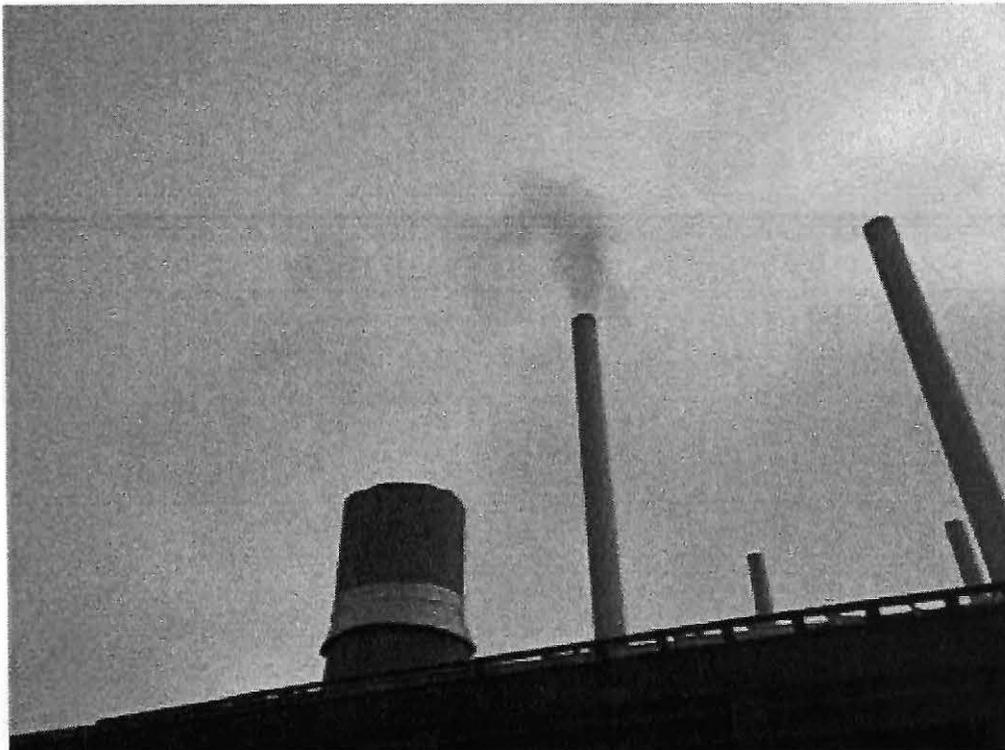
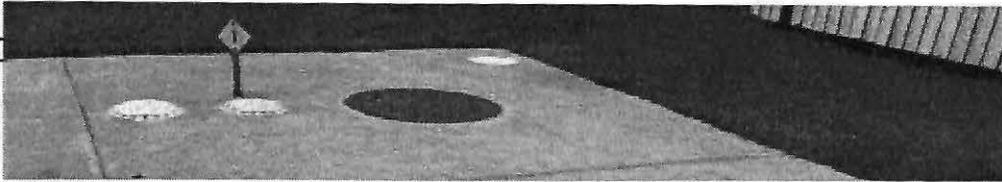


Image 1(Opacity-Test Cell 17) : Opacity coming from engine test cell 17 while testing a military diesel engine.



Image 2(T



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NAME M. Kaur / per Scott

DATE 9/29/20

SUPERVISOR [Signature]

