

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

A430228033

FACILITY: MAHLE industries Inc.		SRN / ID: A4302
LOCATION: 2020 Sanford Street, MUSKEGON HTS		DISTRICT: Grand Rapids
CITY: MUSKEGON HTS		COUNTY: MUSKEGON
CONTACT: Steve Nowak , Facilities Manager		ACTIVITY DATE: 12/11/2014
STAFF: Jenifer Dixon	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: The purpose of this inspection was to complete a scheduled inspection requirement that would also update the AQD on the facility's compliance status with respect to all applicable AQD rules and regulations, the Title V Permit No. MI-PTI-A4302-2010a.		
RESOLVED COMPLAINTS:		

This was an unannounced inspection conducted at the Mahle Engine Components facility on December 11, 2014. A copy of the "Environmental Inspections: Rights and Responsibilities" was supplied.

The purpose of this inspection was to complete a scheduled inspection requirement that would also update the AQD on the facility's compliance status with respect to all applicable AQD rules and regulations, the Title V Permit No. MI-PTI-A4302-2010a.

JD arrived in the area of the facility at approximately 9:30AM and left at 10:45AM. No odors or excess opacity was observed during the time of the inspection. Mr. Max Maschewske, Component Testing, Mr. Steve Novak, Facilities Engineer, and Ms. Barb Hoffman provided pertinent information regarding the facility and the operations contained therein as well as additional information requested after the inspection via e-mail.

Mahle Facilities (Mahle) does testing on engines. The facility has several engine test cells that are used for emissions testing. Mahle has permitted and grandfathered (installed before August 15, 1967) test cells at the facility. These test cells are regulated by the Title V permit, however the grandfathered cells have no specific conditions. The units will be further discussed below.

There are two boilers that both operate on natural gas. One of the boilers is located in the building that houses the test cells. This boiler has a capacity of 3.392 mbtu and is exempt from Rule 201 permitting requirements under Rule 282(b)(i) – less than 50,000,000 btu/hr of natural gas.

The facility is also undergoing remediation for a degreaser that was in operation at the facility in the past. The degreaser contaminated the soil and the facility now has a soil vapor extraction system that is exempt from Rule 201 permitting requirements under Rule 290. This emission unit is contained in the Title V permit and will be further discussed below. The building also houses the other boiler for the facility. This boiler has a capacity of 5 mbtu and is exempt from Rule 201 permitting requirements under Rule 282(b)(i) – less than 50,000,000 btu/hr of natural gas. Starting in January 2015, the building containing this boiler as well as the equipment used in the remediation project will be demolished. The boiler will be decommissioned and the remediation equipment will be housed in a smaller building.

The facility has a small parts washer that is used to spray off parts. The unit has filters for overspray and vents to the outside environment. Because of its small size, it is exempt from Rule 201 permitting requirements under Rule 281(h), cold cleaners less than 10 square feet of air to vapor interface.

Title V Permit No. MI-PTI-A4302-2010

This permit regulates eight of the 21 engine test cells (EU#14 – EU#21). The remaining cells are exempt from permitting under Rule 201 because they were installed before 1967 and are

grandfathered. The test cells are used to test engines against certain performance standards. The engine exhaust is connected to a vent, collected, and connected to the same vent stack. Many of the emission factors were developed from a stack test that was conducted at the facility. The facility is regulated by a Title V permit because the combined CO emissions for all test cells (grandfathered and permitted) exceeded the Title V threshold of 100 tons. However, the Title V permit only has conditions that regulate the permitted cells. Emissions from the grandfathered cells are combined with the permitted cells only in the MAERS report.

The Title V permit is separated into two separate sections. Section 1 contains the permitted engine test cells and Section 2 contains the remediation equipment.

SECTION 1:

FG-TESTCELLS-S1

I. EMISSION LIMITS

1. NOx emissions are limited to 0.15 lb/gallon for gasoline (E-85), CNG, or LPG2 fuels.

This emission factor is based on a stack test and is used to calculate emissions.

2. NOx emissions are limit to 0.138 lb/gallon for diesel fuel.

This emission factor is based on a stack test and is used to calculate emissions.

3. NOx emissions are limited to 34.3 tpy based on a 12-month rolling time period as determined at the end of each calendar month.

Based on the records reviewed, the facility has not exceeded the emission limit. The calculated emissions for NOx for the 12-month rolling time period ending in November 2014 was less than 10.0 tons. This is well below the permitted limit.

NOTE: This is the total NOx emissions for only the permitted cells. The grandfathered cells are only evaluated via the Michigan Air Emissions reporting system.

4. CO emissions are limited to 3.12 lbs/gallon gasoline (E-85) fuel.

This emission factor is based on a stack test and is used to calculate emissions.

5. CO emissions are limited to 0.0137lb/gallon diesel fuel.

This emission factor is based on a stack test and is used to calculate emissions.

6. CO emissions are limited to 89.9 tpy based on a 12-month rolling time period as determined at the end of each calendar month.

Based on the records reviewed, the facility has not exceeded the emission limit. The calculated emissions for CO for the 12-month rolling time period ending in November 2014 were less than 70.0 tons per year. This is well below the permitted limit.

NOTE: This is the total CO emissions for only the permitted cells. The grandfathered cells are only evaluated via the Michigan Air Emissions reporting system.

7. CO emissions are limited to 2.1 lb/gal CNG fuel based on test protocol.

This emission factor is based on a stack test and is used to calculate emissions.

8. CO emissions are limited to 2.5 lb/gal LPG fuel based on test protocol.

This emission factor is based on a stack test and is used to calculate emissions.

II. MATERIAL LIMITS

1. Gasoline (E-85), CNG and LPG usage is limited to 55,709 gallons based on a 12-month rolling time period as determined at the end of each calendar month.

Based on the records reviewed, the facility has not exceeded the usage limit. The gasoline (including E85 fuel) used for the 12-month rolling time period ending in November 2014 was less than 50,000 gallons. This is well below the permitted limit.

2. Diesel usage is limited to 437,000 gallons based on a 12-month rolling time period as determined at the end of each calendar month.

Based on the records reviewed, the facility has not exceeded the usage limit. The diesel fuel used for the 12-month rolling time period ending in November 2014 was less than 55,000 gallons. This is well below the permitted limit.

III. PROCESS/OPERATION RESTRICTION(S) – NA

IV. DESIGN/EQUIPMENT PARAMETER(S) – NA

V. TESTING/SAMPLING - NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years.

1. The permittee shall monitor and record, in a satisfactory manner, the gasoline (E-85), CNG, LPG and diesel usage rates for FG-TESTCELLS-S1 on a monthly and 12 month rolling basis as determined at the end of each calendar month.²

Based on records reviewed this is being done as required by the permit.

2. The permittee shall keep, in a satisfactory manner, monthly and previous 12-month NOx emission calculation records for FG-TESTCELLS-S1.²

Based on records reviewed this is being done as required by the permit.

3. The permittee shall keep, in a satisfactory manner, monthly and previous 12-month CO emission calculation records for FG-TESTCELLS-S1.²

Based on records reviewed this is being done as required by the permit.

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A.
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30.
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year.
4. Each responsible official shall certify annually the compliance status of the stationary

source with all stationary Source-Wide conditions. This certification shall be included as part of the annual certification of compliance as required in the General Conditions in Part A and Rule 213(4)(c).

Based on information received and records reviewed, the facility appears to be completing the required reporting.

VII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted. The stack dimensions are restricted to a maximum diameter and a minimum height. The facility has only one stack that vents all emissions from all test cells.

Based on visual observations, the stacks appear to meet the limitations in this condition. The stacks were not physically measured.

IX. OTHER REQUIREMENTS - NA

SECTION 2:

FGRULE290-S2

This flexible group contains to emissions units, EU-TRAYSTRIPPER-S2 and EU-SVESYSTEM-S2. Both of these emission units are used in the remediation of historical contamination that had occurred on the property. According to Mr. Nowak, so far in 2014, the equipment emitted a total of 10.78 pounds of TCE. The facility appears to be complying with the conditions in the Rule 290 table (See Title V permit for more information).

Based on records reviewed, the amount of material being extracted is minimal at this time and qualifies for this exemption.

Note on the upcoming Title V renewal:

Not only will Mahle be deconstructing one of the buildings located at the stationary source, the ownership of the two separate work modules will now be contained under one unit – Mahle Engine Components. This ownership change will eliminate the need for a sectioned permit. Upon renewal, all equipment will be housed under one section.

Based on observations made at the time of the inspection and records review, Mahle appears to be in compliance with Title V Permit No. MI-PTI-A4302-2010a and all other applicable Air Quality Rules and Regulations.

NAME 

DATE 12.15.14 SUPERVISOR PAB