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

P042355210

FACILITY: STERLING PERFORMANCE, INC.		**SRN / ID:** P0423
LOCATION: 54420 PONTIAC TRAIL, MILFORD		**DISTRICT:** Warren
CITY: MILFORD		**COUNTY:** OAKLAND
CONTACT: Mr. Michael J. D'Anniballe , President		**ACTIVITY DATE:** 03/06/2020
STAFF: Joe Forth	**COMPLIANCE STATUS:** Non Compliance	**SOURCE CLASS:** SM OPT OUT
SUBJECT: On-site Inspection		
RESOLVED COMPLAINTS:		

On March 6, 2020, AQD staff Joseph Forth conducted a scheduled inspection at Sterling Performance (P0423) located at 54420 Pontiac Trail, Milford Charter Twp, MI 48381. The purpose of the inspection was to determine the facility's compliance with the Federal Clean Air Act; Article II, Part 55, Air Pollution Control of Natural Resources and Environmental Protection Act, 1994 Public Act 451, as amended, EGLE-AQD Air Pollution Rules, and requirements of the permit to install (PTI) No. 43-13B.

Sterling Performance manufactures, assembles, and tests performance engines. The varieties of tests provided by Sterling are as follows: evaporative testing of hoses, fittings, injection pumps, on-board vehicle carbon canisters, etc.

I met with Mr. Michael D'Anniballe, President, who gave me a tour of the facilities. I accepted Mr. D'Anniballe's request to send the records electronically the following week as the person who handles the records was not working the day I inspected.

Sterling Performance has three buildings, the one permitted by PTI No. 43-13B and two more containing exempt equipment.

Building 1: In this building there is fabrication and machining equipment such as a lathe, mills, and surface grinders. All emissions are to the general in-plant environment. The equipment in this building appears to be exempt from permitting per Rule 336.1285(2)(l).

Building 2: This building houses the permitted engine test cells (2). The building also contains a sandblast machine with a self-contained particulate matter recovery system with a dry filtered exhaust to the general in-plant environment. This equipment appears to be exempt from permitting per Rule 336.1285(2)(l).

There are also five cold-cleaners with a spray cleaner and solvent tank in this building. During the inspection the cold-cleaner lids were all closed that were not in present use. All had the operation procedures posted in a visible place on the equipment. The cold-cleaners appear to be exempt from permitting per Rule 336.1281(2)(h) or Rule 336.1285(2)(r)(iv).

Heritage Crystal Clean, Inc. (a competitor of Safety-Kleen) supplies the solvents and services the cold-cleaners. Synthetic Isoparaffinic Hydrocarbons (Exxon Chemical 800-424-9300) containing no halogenated solvents is used.

The cold-cleaners are not Subject to: 40 CFR, Part 63, Subpart T, NESHAP/ MACT T, since solvents containing halogenated compounds are not used.

Building 3: Building 3 is where Sterling performs their non-dynamometer testing (vibration, vapor recovery, etc.).

Vibration, helium leak and salt fog tests are performed. Evaporative emission tests are performed. Evaporation from automotive parts is measured using instruments capable of detecting 0.5 ppm gasoline. The test may involve collecting sample in Tetlar plastic bag. Two sheds for evaporative testing are present.

Fuel pumps are tested for evaporative losses. The pumps are tested in a closed loop system with practically no gasoline vapor emissions.

On-board vehicle vapor recovery canisters are tested for gasoline load or capacity of carbon to hold gasoline vapors via carbon adsorption. The test is performed by determining initial weight of empty canister and final weight of saturated (of gasoline vapor) canister. On a vehicle, canister desorption is

via vacuum as gasoline tank empties creating partial vacuum.

Any emissions from these processes are vented to the general in-plant environment. The processes in Building 3 appear to fall under permitting exemptions pursuant to Rules 336.1285 and 336.1290 because gasoline vapor emissions are practically zero.

Compliance

PTI No. 43-13B

Sterling Performance provided an excel document of all calculations. The document can be found in: S:\Air Quality Division\STAFF\Joe Forth\P0423 Sterling Performance FY20 Inspection

I.1 A 12-month rolling CO emission limit of 77.0 tons per year. Calculations show 10.3 tons of CO emitted from April 2019 through March 2020.

I.2 A 12-month rolling benzene emission limit of 646 pounds per year. Calculations show 80 pounds of benzene emitted from April 2019 through March 2020.

I.3 A 12-month rolling formaldehyde emission limit of 646 pounds per year. Calculations show 80 pounds of formaldehyde emitted from April 2019 through March 2020.

II.1 Sterling Performance only burns leaded gasoline, unleaded gasoline, and gasoline/alcohol fuel blends in the test cells.

II.2 A material limit of 34,500 gallons of fuel per 12-month rolling time period, of which no more than 900 gallons can be leaded gasoline. From April 2019 through March 2020, Sterling Performance burned 5,185 gallons of fuel, none of which was leaded.

II.3 The facility has a limit of 50 gallons of fuel burned per hour, based on their yearly total of 5,185 gallons they would appear to be within this limit.

III.1 A limit of 4,380 minutes per year of WOT (Wide Open Throttle) operation time. Sterling Performance estimates their WOT to be 5% of the operating time of the cells. The total operating time for the test cells was 12,948 minutes. Therefore, the facility operated at WOT for approximately 647.4 minutes from April 2019 through March 2020. Despite this estimate being well under the limit, no official records were being kept and therefore it can not be confirmed.

III.2 The permittee cannot operate FGTESTCELLS for more than 12 hours per calendar day. Sterling Performance operates between 9 to 12 hours a day according to Mr. D'Annibale.

IV.1 Sterling Performance has all test cells equipped with continuous hourly fuel use monitors.

VI.1 The permittee appears to complete all calculations in a timely matter.

VI.2 The Permittee must keep records for the following information for FGTESTCELLS:

- **a. Monthly WOT operation time, in minutes. The facility was not keeping specific record of WOT time.**
- **b. 12-month rolling time period WOT operation time, in minutes. The facility was not keeping specific record of WOT time.**
- **c. Gallons of total fuel and individual fuels used per 12-month rolling time period. 5,185 total gallons used; 4,699 gallons of Unleaded Gasoline, 486 of E-85 gasoline blend.**
- **d. Monthly CO emissions calculations.**
- **e. 12-month rolling time period CO emissions calculations.**
- **f. Monthly benzene emissions calculations.**
- **g. 12-month rolling time period benzene emissions calculations.**
- **h. Monthly formaldehyde emissions calculations.**
- **i. 12-month rolling time period formaldehyde emissions calculations.**

VI.3 The permittee shall keep records of the maximum lead content in the gasoline (both leaded and unleaded). The facility provided information showing the lead content of the fuel used in FGTESTCELLS.

VI.4 The permittee shall keep records of the daily total hours of operation for FGTESTCELLS. The facility provided daily operating hours.

VIII.1-3 The exhaust stacks for FGTESTCELLS appear to discharge vertically unobstructed into the ambient air.

FGFACILITY

I.1 Individual HAP emission limit of 9 tons per year. Each individual HAP appears to be under the 9 ton per year limit.

I.2 Aggregate HAP emission limit of 22.5 tons per year. The aggregate HAP emissions for Sterling Performance for April 2019 through March 2020 was 0.51 tons.

V.1 Sterling Performance uses manufacturer formulation data to determine HAP content and emissions.

VI.1 Sterling Performance appears to complete all required calculations and summary of calculations by the 15th day of the calendar month, for the previous calendar month.

VI.2 The permittee appears to be keeping the following information on a monthly basis:

a. **Gallons of each HAP containing material used.**
b. **Gallons of each HAP material reclaimed.**
c. **HAP content of each HAP containing material.**
d. **Fuel usage and HAP emissions for each fuel type used at the facility.**
e. **Individual and aggregate HAP emissions calculations for each month.**
f. **12-month rolling time period emissions calculations for individual and aggregate HAPs in tons per month.**

Conclusion

Sterling Performance is in violation of PTI No. 43-13B, Special Conditions III.1 and VI.2 (a) and (b). A violation notice will be issued for this matter. Sterling Performance appears to not be in compliance with the Federal Clean Air Act; Article II, Part 55, Air Pollution Control of Natural Resources and Environmental Protection Act, and 1994 Public Act 451, as amended, EGLE-AQD Air Pollution Rules.

NAME Joseph M Fudd DATE 9-28-20 SUPERVISOR Sebastiang Kallumkal