

DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION  
ACTIVITY REPORT: On-site Inspection

P042357411

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| <b>FACILITY:</b> STERLING PERFORMANCE, INC.                     |  | <b>SRN / ID:</b> P0423           |
| <b>LOCATION:</b> 54420 PONTIAC TRAIL, MILFORD                   |  | <b>DISTRICT:</b> Warren          |
| <b>CITY:</b> MILFORD  |  | <b>COUNTY:</b> OAKLAND           |
| <b>CONTACT:</b> Mr. Michael J. D'Anniballe , President          |  | <b>ACTIVITY DATE:</b> 03/11/2021 |
| <b>STAFF:</b> Joe Forth   | <b>COMPLIANCE STATUS:</b> Non Compliance | <b>SOURCE CLASS:</b> SM OPT OUT  |
| <b>SUBJECT:</b> On-site inspection with digital records review. |  |                                  |
| <b>RESOLVED COMPLAINTS:</b>                                     |  |                                  |

On March 11, 2021, 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. The facility is Opt-Out for HAPs and CO.

I met with Mr. Michael D'Anniballe, President, who gave me a tour of the facilities. Records were requested and collected electronically.

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)(I).

**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)(I).

There are also five cold-cleaners with a spray cleaner and solvent tank (enclosed container that stores solvent, not directly used for cleaning) in this building. During the inspection, the cold-cleaner lids were all closed that were not in present use. All had the AQD operation procedures posted in a visible place on the equipment. The facility requested new stickers as some have become worn with use of the equipment, I provided new stickers at a later date. The cold-cleaners appear to be exempt from permitting per Rule 336.1281(2)(h). The cold cleaners appear to be compliant with Rule 707, as all the lids are mechanically assisted, and are not heated.

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 Tedlar 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 FY21 Inspection

**I.1** A 12-month rolling CO emission limit of 77.0 tons per year. Calculations show 12.6 tons of CO emitted from March 2020 through February 2021. The highest 12-month rolling total observed in the compliance period would be the 12-month period ending in December 2020 at 13.0 tons of CO.

**I.2** A 12-month rolling benzene emission limit of 646 pounds per year. Calculations show 94.3 pounds of benzene emitted from March 2020 through February 2021. The highest 12-month rolling total observed in the compliance period would be the 12-month period ending in December 2020 at 96.8 pounds of benzene.

**I.3** A 12-month rolling formaldehyde emission limit of 394 pounds per year. Calculations show 94.3 pounds of formaldehyde emitted from March 2020 through February 2021. The highest 12-month rolling total observed in the compliance period would be the 12-month period ending in December 2020 at 96.8 pounds of formaldehyde.

**II.1** According to Mr. D'Anniballe and their records, 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 March 2020 through February 2021, Sterling

Performance burned 6,414 gallons of fuel, of which 605 gallons were leaded. This time period was tied for the highest amount of leaded fuel usage.

**II.3** The facility is not properly keeping hourly fuel use records. The facility had several months where their reported hours of operation and fuel usage exceeded 50 gallons of fuel per hour. This is a violation of this permit condition and the permittee will be issued a violation for this condition.

**III.1** A limit of 4,380 minutes per year of WOT (Wide Open Throttle) operation time. WOT for March 2020 through February 2021 is reported to be 471.60. The facility received a Violation Notice for failure to record WOT in 2020, the permittee appears to have corrected the issue.

**III.2** The permittee cannot operate FGTESTCELLS for more than 12 hours per calendar day. Sterling Performance operates 9 hours a day, 8:30 am – 5:30 pm, according to Mr. D'Annibale. The facility does not keep official daily operating hours however, which is required by special condition VI.4 and will be included in the violation notice.

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

**VI.1-4** The permittee appears to be keeping all required records except those related to hourly fuel and operating conditions (VI.2c and VI.4)

**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 March 2020 through February 2021 was 0.63 tons. The highest 12-month rolling total observed in the compliance period would be the 12-month period ending in December 2020 at 0.65 tons of HAP.

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

**VI.1-2** 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.

#### **Conclusion**

Sterling Performance is not operating in compliance with PTI No. 43-13B, the facility is not keeping required hourly fuel use and operation records required by special conditions II.3, III.2, VI.2c and VI.4.

NAME 

DATE 6/08/21

SUPERVISOR 