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

P042363586

FACILITY: STERLING PERFORMANCE, INC.		**SRN / ID:** P0423
LOCATION: 54420 PONTIAC TRAIL, MILFORD		**DISTRICT:** Warren
CITY: MILFORD		**COUNTY:** OAKLAND
CONTACT: Michael D'Anniballe , President		**ACTIVITY DATE:** 06/15/2022
STAFF: Mark Dziadosz	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** SM OPT OUT
SUBJECT:		
RESOLVED COMPLAINTS:		

On Wednesday, June 15, 2022, I, Michigan Department of Environment Great Lakes and Energy-Air Quality Division staff Mark Dziadosz, conducted an announced scheduled inspection of Sterling Performance, Inc (P0423), located at 54420 Pontiac Trail, Milford, Michigan. The purpose of this inspection was to determine the facility's compliance with the Federal Clean Air Act Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act of 1994, PA 451, as amended, and Permit to Install (PTI) No. 43-13B.

Sterling Performance manufactures, assembles, and tests performance engines. The varieties of tests provided are evaporative testing of hoses, fittings, injection pumps, on-board vehicle carbon canisters, etc. The facility is Opt-out for HAPs and CO. On June 10, 2021, the facility had received a Violation notice (VN) for recordkeeping violations associated with PTI No. 43-13B. The facility has 17 employees total, but only 4 works on the dynamometer. The facility operates 4 10-hour shifts per week.

I arrived at Sterling Performance, Inc. at 9:30 AM and met with Mr. Michael D'Anniballe, President. Prior to the inspection, records were requested and collected electronically and reviewed on 6/14/2022. Upon arrival, I was taken on a tour of the facility and discussed operations.

Building 1: This building contains fabricating and machining equipment such as lathe, mills, and surface grinders. All emission vent to the in-plant environment. The equipment appears to be exempt from permitting per Rule 336.1285(2)(l).

Building 2: This building contains the permitted engine test cells (2). Only 1 of the cells is currently in use (1 stack). Michael indicated this cell runs on old technology and once it breaks down, they will switch operation to the other test cell. The engines run on 93 Octane w/10% Ethanol approximately 90% of the time. Gasoline is kept in drums and a dipstick is used to determine the amount used. The hours of operation and gallons of fuel used is kept by Jeff. The information is kept on a calendar and then inputted into a spreadsheet by Kristen Hyde. I asked Kristen to add the total fuel used during the month to the spreadsheet as well as a daily breakdown of fuel usage. 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. The machine appears to be exempt from permitting per Rule 336.1285(2)(l).

There are five cold-cleaners with a spray cleaner and a solvent tank (enclosed container that stores solvent, not directly used for cleaning) in this building. During inspection, the cold cleaners with all lids closed were not in use. All had AQD operational procedures posted in a visible place on the equipment. The stickers were worn, and the facility requested new ones. The stickers were sent on June 23, 2022. The cold-cleaners appear to be exempt from permitting per rule 336.1281(2)(h). The cold-cleaners appear to be complaint with rule 707, as all the lids are mechanically assisted, and the solvents are not heated. Heritage Crystal Clean, Inc. 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.

The building contains a paint booth. Engine blocks and cylinder heads are coated. The booth has a filter system, and the filters are changed when necessary. Michael was able to show me new clean filters. According to Michael, only 8 oz cans are used and approximately 1 can is used per week. The booth appears to be exempt from permitting per rule 336.1287(2)(b)

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

Vibration, helium leak and salt fog tests are performed. Evaporative emissions tests are performed. Evaporation from automotive parts is measured using instruments capable of detecting 0.5 ppm gasoline. The test may involve collecting samples in Tedlar bags. 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 vapor emissions.

On-board vehicle vapor recovery canisters are tested for gasoline load or capacity of carbon to hold gasoline vapors via carbon adsorption for Tier I suppliers. The test is performed by determining initial weight of empty canister and final weight of saturated (gasoline vapor) canister. On a vehicle, canister desorption is via a vacuum as gasoline tank empties creating partial vacuum. Saturated canisters are sent back to the suppliers.

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 Rule 336.1290 because gasoline vapor emissions are practically zero. There is no emergency generator onsite.

Compliance

PTI No. 43-13B

FGTESTCELLS

Sterling Performance provided an excel spreadsheet of all calculations. The document can be found in: S:\Air Quality Division\Staff\Mark Dziadosz\P0423 Sterling Performance FY22 Inspection or the facility plant file.

I.1 A 12-month rolling CO emission limit of 77.0 tons per year. The highest average 12-month rolling total observed was 14.2 tons emitted from September 2020 through August 2021.

I.2 A 12-month rolling Benzene emission limit of 646 pounds per year. The highest average 12-month rolling total observed in 2021/2022 was 58.2 pounds emitted from February 2021 through January 2022.

I.3 A 12-month rolling Formaldehyde emission limit of 394 pounds per year. The highest average 12-month rolling total observed in 2021/2022 was 52.6 pounds emitted from February 2021 through January 2022.

II.1 According to Mr. D' Anniballe and the usage records, Sterling Performance only burns leaded gasoline, unleaded gasoline, and gasoline/alcohol fuel blends in the test cell.

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. The highest average 12-month rolling total observed in 2021/2022 was 3,964 gallons. There was no lead fuel used during this time. 110 gallons of leaded fuel was burned in May 2022, but that was the only time it was burned in the previous 12-months.

II.3 A total fuel usage limit of 50 gallons of fuel per hour. This condition received a violation notice during previous inspection. The facility added total fuel used per month to the record keeping spreadsheet in June 2021. The facility was already tracking hours of operation. Dividing fuel used by the hours of operation did not indicate any exceedances of the 50 gallon per hour limit and according to the facility, if the engine was run at 50 gallons/hour the engine would overheat unless ambient temperatures were well below zero. However, I asked the facility to add a daily log of the fuel used to the recordkeeping spreadsheet. This will further demonstrate compliance with the 50-gallon per hour fuel usage limit.

III.1 A limit of 4,380 minutes per 12-month rolling time period of WOT (wide open throttle). WOT from January 2021 to December 2021 was 409 minutes.

III.2 A limit of 12 hours of operation per day on the test cells. According to Michael, the facility operated 4 10-hour shifts/week. In July and September of 2021, the test cells operated 21.6 and 23.5 hours respectively. According to records kept on Jeff's calendar, these did not exceed 12 hours/day. No other month exceeded 12 hours total for the month. Starting in 2022, I had the facility add a daily log of hours of operation of the test cell as well as gallons of fuel burned to the record keeping spreadsheet.

IV.1 Sterling performance has the test cell equipped with a continuous hourly fuel use monitor.

VI.1-4 The permittee appears to be keeping all required records. The maximum lead content is 0.15% for the 110 Octane Leaded fuel. The facility was keeping total hours of operation per month in the spreadsheet. However, SC VI.4 requires daily records of total hours of operation. The spreadsheet is filled out by administrative staff based on the managers records. Records of hours of operation as well as fuel burned per day are kept on a calendar which is then totaled and added to the recordkeeping spreadsheet. I asked Kristen Hyde to include the daily hours of operation and fuel burned data in the recordkeeping spreadsheet starting in 2022. I received an amended spreadsheet containing the information.

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 12-month rolling time period. Each individual HAP appears to be under the 9 ton per 12-month rolling time period limit. The highest 12-month HAP emission is approximately 0.21 tons of lead compounds from September 2020 to August 2021.

I.2 Aggregate HAP emission limit of 22.5 tons per 12-month rolling time period. Aggregate HAP emissions appears to be under the 22.5 ton per 12-month rolling time period limit. The highest 12-month aggregate HAP emission is approximately 0.73 tons from September 2020 to August 2021.

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

V1.1-2 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.

The facility has submitted their MAERS report on time each year since 2015. Based on the information gathered during the inspection, Sterling Performance appears to be in compliance with the Federal Clean Air Act Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act of 1994, PA 451, as amended, and PTI No. 43-13B.

NAME _____ DATE July 13, 2022 SUPERVISOR _____