

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

*FY 2015 Insp*

P042328764

FACILITY: STERLING PERFORMANCE, INC.	SRN / ID: P0423
LOCATION: 54420 PONTIAC TRAIL, MILFORD	DISTRICT: Southeast Michigan
CITY: MILFORD	COUNTY: OAKLAND
CONTACT: Mr. Michael J. D'Anniballe, President	ACTIVITY DATE: 03/03/2015
STAFF: Iranna Konanahalli	COMPLIANCE STATUS: Non Compliance
SUBJECT: FY 2015 level 2 scheduled inspection of Sterling Performance, Inc. ("Sterling")	SOURCE CLASS: SM OPT OUT
RESOLVED COMPLAINTS:	

*P0423 - SAR - 2015 03 03*

**Sterling Performance, Inc. (P0423)**  
54420 Pontiac Trail  
Milford, Michigan 48381-4344

[www.sterlingperformance.org](http://www.sterlingperformance.org)

NAICS Code: 336399; SIC Code: 3519

VNs: Violation Notices dated February 13, 2013 (Rules 201 PTI & 707 Cold-cleaner) and October 24, 2013 (Rule 210 ROP).

Synthetic Minor (ROP, area MACT) PTI No. 43-13 dated July 17, 2013 (Rule 702 BACT – cost analysis \$39,000 per ton VOC controlled). Prior to the permit, Sterling was subject to Major MACT, PSD (above threshold levels for CO and above significant level for VOC); PSD review was not performed. Potential lead (Pb) emissions were also high due to leaded gasoline use.

Subject to: MAERS – annual reporting required due to synthetic minor permit.

Consent Order: AQD No. 38-2014 effective June 4, 2014, executed by G. Vinson Hellwig, AQD Chief. \$10,000 settlement.

Not Subject to: NESHAP/ MACT T, area source National Emission Standards for Hazardous Air Pollutants: Halogenated Solvent Cleaning (40 CFR, Part 63, Subpart T; NESHAP/ MACT T); Correction; 29484 Federal Register / Vol. 60, No. 107 / Monday, June 5, 1995 / Rules and Regulations; amended National Air Emission Standards for Hazardous Air Pollutants: Halogenated Solvent Cleaning (40 CFR, Part 63, Subpart T); Final Rule; Page 25138 Federal Register / Vol. 72, No. 85 / Thursday, May 3, 2007 / Rules and Regulations.

Not subject to NSPS (none for test cells / dyno)

Not Subject to: NESHAP/ MACT 5P, 40 CFR Part 63, Subpart P P P P P - National Emission Standards for Hazardous Air Pollutants for Engine Test Cells/Stands, Pate 28774, Federal Register / Vol. 68, No. 101 / Tuesday, May 27, 2003 / Rules and Regulations / Final rule.

Prior to obtaining the synthetic minor permit PTI No. 43-13, Sterling was a major source for ROP, PSD, HAP (all). Although Sterling was a major MACT source (prior to PTI No. 43-13), the dynamometer / Engine test cell, in spite of once-in-always-in policy,

**is not subject to MACT 5P because it was constructed before May 14, 2002 (built about 1991). Sterling is now an area MACT source based upon legally, federally and practically enforceable limits of the permit.**

On February 7, 2013, I conducted a level 2 scheduled inspection of Sterling Performance, Inc. ("Sterling") located at 54420 Pontiac Trail, Milford, Michigan 48381-4344. The inspection was conducted to determine compliance with the Federal Clean Air Act; Article II, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451; synthetic minor permit PTI No. 43-13; Consent Order AQD No. 38-2014; and Michigan Department of Environmental Quality, Air Quality Division (MDEQ-AQD) administrative rules.

During the inspection, Mr. Michael J. D'Anniballe (Phone: 248-684-5040; Fax: 248-684-0080; E-mail: mdanniballe@sterlingperformance.org), President, and Mr. Jeff Burrill (Phone: 248-684-5040; Fax: 248-684-0080; E-mail: JBurrill@sterlingperformance.org), VP, assisted me. Mr. Burrill runs the dynamometer cell (no controls).

Sterling is in the business of manufacturing / assembling performance engines for pleasure / racing boating. Sterling also provides testing services for automotive industry such as evaporative testing of hoses, fittings, injection pumps, on-board vehicle carbon canisters, etc. Sterling started its operations in Milford about 1991. Engine building & assembly and testing operations are conducted in three buildings: 54474 (Building #1), 54420 (Building #2) & 54380 (Building #3) Pontiac Trail, Milford.

#### **Building #1: 54474 Pontiac Trail**

In this building fabrication and machining takes place. Lathe (1), mills (3) and surface grinders are present. All emissions are discharged into in-plant ambient air. The machines are exempt from Rule 336.1201 (Permit-to-Install) pursuant to Rule 336.1285(l).

#### **Building #2: 54420 Pontiac Trail**

##### **Sandblast machine**

One sandblast machine (Trinco) equipped with its own dedicated capture device for particulate matter emissions and a dry filter system. Upon cleaning to remove particulate matter, exhaust gases are released to in-plant environment.

The machine is exempt from Rule 336.1201 (Permit-to-Install) pursuant to Rule 336.1285(l).

##### **Cold-cleaners**

There are five Gray Mills parts cold-cleaners with spray a brush and a solvent tank. The cold-cleaners are subject rule 336.611 or 336.1707 depending on if it is new or existing. A cold-cleaner is exempt from Rule 336.1201 pursuant to Rule 281(h) or Rule 285(r)(iv). Existing cold cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979.

All cold-cleaners are soaker type. Solvent is pumped over the part. Brush may be used to clean. All are equipped with mechanically assisted lid. All lids were open during the FY 2013 inspection; lids were kept open as a matter of practice. Work-practice procedures were not posted. Please refer to the violation notice.

After February 13, 2013, Violation Notice, based upon FY 2015 inspection, the procedures

(DEQ Decals) are posted and lids are kept closed when access is not needed.

Safetky-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.

AQD issued February 13, 2013, Violation Notice and sent DEQ's decals for "cold-cleaner operating procedures" for posting and complying with work-practice rules. I asked the company to follow the common sense work practice in the procedures.

100% VOC solvent. Flash Point (FP) = NA °F TCC. Auto Ignition = NA °F. Boiling Point (BP) = 354-372 °F @ 760 mm Hg. Vapor Pressure (VP) = 1 mm Hg at 68 °F. Specific Gravity (SG, Water = 1.0) = 0.76. Density (ρ) @ 68 °F = 6.5 lbs. / gallon. Flammability range = NA %v (LEL) – NA %v (UEL).

**Engine dynamometer**

**DESCRIPTION:**

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Installation Date / Modification Date	Flexible Group ID
EUTESTCELL1	One marine/racing engine dynamometer. The engines tested will be fueled by unleaded and leaded gasoline. The cell is equipped with a single exhaust stack, SVTESTCELL1.	1/1/1991	N/A
Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1290.			

**I. EMISSION LIMITS**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. CO	68.0 tpy	12-month rolling time period as determined at the end of each calendar month.	EUTESTCELL1	SC VI.2	R 336.1205(1) (a) & (3)
2. Benzene	0.25 tpy	12-month rolling time period as determined at the end of each	EUTESTCELL1	SC VI.2	R 336.1224, R 336.1225

		calendar month.		
Emission Factors: CO – 3,940 lb/1,000 gallons Benzene – 1.47E-2 lb/gallon				

Two engine dynamometers were installed about 1991. One of two dynamometers is permanently removed. Large engines (750 HP) are tested for specifications. Two pairs of mufflers are present outside the building; one for each dynamometer.

AQD issued February 13, 2013, Violation Notice of Rule 336.1201 for installing dynamometers (2) without obtaining a Permit-to-Install. In addition, AQD issued October 24, 2013, Violation Notice of Rule 336.1210 for operation of the plant without federal operating permit (ROP / Title V). Subsequently, Sterling obtained ROP and MACT synthetic minor permit (PTI No. 43-13).

Sterling is not performing calculations every month. Carbon monoxide (CO) and benzene calculations are not performed at all (Violation of PTI No. 43-13, EU-TESTCELL1, SC VI and PTI No. 43-13, FG-FACILITY, SC VI). I asked the company to perform these calculations in a timely manner. At this time, compliance with gasoline usage limits (PTI No. 43-13, EU-TESTCELL1, SC II.2 limit: 34,500 total, 900 leaded, gallons per year) is deemed to be compliance with emissions limits.

Based upon MAERS-2014, 103,839 pounds per year  $\approx$  52 tpy carbon monoxide (CY 2014) were emitted (PTI No. 43-13, EU-TESTCELL1, SC I.1 limit: 68 tpy CO). Benzene emissions are not calculated (PTI No. 43-13, EU-TESTCELL1, SC I.2 limit: 0.25 tpy benzene).

Only leaded gasoline, unleaded gasoline, gasohol (gasoline and alcohol blends) are used (PTI No. 43-13, EU-TESTCELL1, SC II.1 limit: only those listed are allowed).

27,235 gallons per year total, 880 gallons per year leaded, 19,588 gallons per year unleaded, 6,767 gallons per year gasohol were used (PTI No. 43-13, EU-TESTCELL1, SC II.2 limit: 34,500 total, 900 leaded, gallons per year).

Proper records are not kept and the calculations are not performed in a timely manner (PTI No. 43-13, EU-TESTCELL1, SC VI limit: 12-month rolling calculations by 15<sup>th</sup> of each month is required). The company is also required to keep lead (Pb) analysis for each fuel delivery. These are violation of both the permit and the consent order. The company is given an opportunity to fix this problem as soon as possible. However, the company has submitted MAERS-2014 for the first time.

Exhaust gases are now (FY 2015) discharged vertically upwards. 90 ° L-shaped elbow was removed about June 2014, from about 30-ft stack (PTI No. 43-13, EU-TESTCELL1, SC VIII.1, SV-TESTCELL1).

### **EGR Cooler testing**

Two EGR Cooler test stands are present. The test stands replaced one of two dynamometers. EGR cooler is thermo-cycled during the testing. Propane is used as fuel to generate heat. 200 gallons (liquid) propane is used per week.

### **Rule 287(b) Paint Spray Booth**

One paint spray booth (16 ft. x 6 ft.) with a back-draft dry filter system is present. Only spray cans (10 cans / month) are used; no paint spray gun.

I asked Mr. D'Anniballe to install and inspect the filters such that they fit, at all times, snugly without gaps and holes. Particulate and VOC are discharged to outside ambient air with a rain-cap on the tip of the stack. Any rain-cap (except no-pressure-loss [a.k.a. no-energy-loss] rain protection) is not allowed by AQD. However, due to negligible emissions from spray cans (10 cans / month), no action is necessary at this time pending odor nuisance complaints.

The booth is exempt from Rule 336.1201 (Permit-to-Install) pursuant to Rule 336.287(b) as only spray cans are used.

### **Machine shop**

Honing, surface cutter, rod-hone, valve-seal cutter machines are present. The emissions are discharged to in-plant ambient air.

The machines are exempt from Rule 336.1201 (Permit-to-Install) pursuant to Rule 336.1285 (I).

### **Engine assembly area**

Engines are assembled.

### **Building #3: 54380 Pontiac Trail**

Building #3 is located across the street (Technical Drive).

### **Testing**

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.

During the above testing all emissions are released into in-plant ambient air. The testing processes are exempt from Rule 336.1201 (Permit-to-Install) pursuant to either Rule 336.1285 or Rule 336.1290 because gasoline vapor emissions are practically zero.

### **Consent Order AQD No. 38-2014: February 13, 2013, and October 24, 2013 VN**

On February 21, 2013, AQD received a VN response letter dated February 19, 2013. The letter stated that Sterling would comply with Cold-cleaner work-practice rule. The letter

included a copy of Rule 201 permit application. AQD never received VN response for October 2013 Violation Notice.

These violations were resolved with Consent Order AQD No. 38-2014 effective June 4, 2014, executed by Mr. G. Vinson Hellwig, AQD Chief. \$10,000 is a settlement amount.

**Conclusion**

AQD issued February 13 and October 24, 2013, Violation Notices of Rules 336.1201 (PTI) and 336.1210 (ROP) for engine dynamometer and of Rule 336.1707 for cold-cleaners. AQD received a VN response letter dated February 19, 2013. These violations were resolved with Consent Order (\$10,000 settlement). Not in compliance with PTI No. 43-13 (calculations and recordkeeping).

**FYI:February 13 and October 24 2013, VN**

February 13, 2013

Mr. Michael J. D'Anniballe, President  
Sterling Performance, Inc.  
54420 Pontiac Trail  
Milford, Michigan 48381-4344

SRN: P0423, Oakland (63) County

Dear D'Anniballe:

**VIOLATION NOTICE**

On February 7, 2013, the Department of Environmental Quality (DEQ), Air Quality Division (AQD), conducted an inspection of Sterling Performance Inc. ("Sterling") located at 54420 Pontiac Trail, Milford Michigan. The purpose of this inspection was to determine Sterling's compliance with the requirements of the federal Clean Air Act; Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451); and the administrative rules.

During the February 7, 2013 inspection, staff observed the following:

Process Description	Rule/Permit Condition Violated	Comments
Performance / racing engine dynamometer	Rule 336.1201 (Permit-to-Install)	About 1991, Sterling installed two dynamometers without obtaining a permit; one of two dynamometers has been removed. <sup>θ</sup>
5 parts-cleaners / cold-cleaners installed about 1991	Rule 336.1707(3)	Sterling keeps the covers open at all times as a matter of practice.
5 parts-cleaners / cold-cleaners installed about 1991	Rule 336.1707(4)	Written work-practice procedures were not posted.

<sup>θ</sup> Based upon potential-to-emit (operation of the process equipment at design capacity for 8,760 hours per year) of any criteria / hazardous air pollutant, Sterling may be a major source (PTE ≥ 10 [single HAP] / 25 [aggregate HAPs] tpy or PTE ≥ 100 tpy of any pollutant listed including criteria pollutants according to Rule 336.1211) with respect to Renewable Operating Program (Rule 336.1210). Therefore, it may be advisable to

obtain synthetic minor limits (each criteria pollutant < 100 tpy, Single HAP < 10 tpy, Aggregate HAPs < 25 tpy) in the permit.

During this inspection, it was noted that Sterling had installed and/or commenced operation of an unpermitted Marine / Racing Engine Dynamometer at this facility; the engine may be up to 4-10 times the size of Ford F-150 engine. The AQD staff advised Sterling on February 7, 2013, that this is a violation of Act 451, Rule 336.1201 (Rule 201).

A program for compliance may include a completed PTI application for the Engine Dynamometer process equipment. An application form is available by request, or at the following website:

[http://www.deq.state.mi.us/aps/nsr\\_information.shtml#AUP](http://www.deq.state.mi.us/aps/nsr_information.shtml#AUP)

Be advised that Rule 201 requires that a permit be obtained prior to installation, construction, operation, reconstruction, relocation, or alteration of any process or process equipment which may be a source of an air contaminant.

Please initiate actions necessary to correct the cited and submit a written response to this Violation Notice by March 6, 2013 (which coincides with 21 calendar days from the date of this letter). The written response should include: the dates the occurred; an explanation of the causes and duration of the ; whether the ongoing; a summary of the actions that have been taken and are proposed to be taken to correct the and the dates by which these actions will take place; and what steps are being taken to prevent a reoccurrence.

If Sterling believes the above observations or statements are inaccurate or do not constitute violations of the applicable legal requirements cited, please provide appropriate factual information to explain your position.

Thank you for your attention to resolving the cited above and for the cooperation that was extended to me during my inspection of Sterling. If you have any questions regarding the or the actions necessary to bring this facility into compliance, please contact me at the number listed below.

Sincerely,

Iranna Konanahalli

Air Quality Division  
586-753-3741 or [konanahalli@michigan.gov](mailto:konanahalli@michigan.gov)

ISK/VLL

Enclosures

cc/via email: Ms. Lynn Fiedler, DEQ  
Ms. Teresa Seidel, DEQ  
Mr. Thomas Hess, DEQ  
Mr. Chris Ethridge, DEQ

October 24, 2013

Mr. Michael J. D'Anniballe, President  
 Sterling Performance, Inc.  
 54420 Pontiac Trail  
 Milford, Michigan 48381-4344

SRN: P0423, Oakland (63) County

Dear D'Anniballe:

**VIOLATION NOTICE**

On February 7, 2013, the Department of Environmental Quality (DEQ), Air Quality Division (AQD), conducted an inspection of Sterling Performance Inc. ("Sterling") located at 54420 Pontiac Trail, Milford, Michigan. The purpose of this inspection was to determine Sterling's compliance with the requirements of the federal Clean Air Act; Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451), and the administrative rules.

During the February 7, 2013 inspection, staff observed the following:

Process Description	Rule/Permit Condition Violated	Comments
Entire facility including performance / racing engine dynamometer	Rules 336.1210, 2011 (Federal CAA Title V / Michigan Renewable Operation Permit [ROP])	Sterling failed to obtain ROP and to submit an administratively complete application in a timely manner according to the schedule stated in Rules 336.1210 (4 & 5). <sup>θ</sup>
<sup>θ</sup> Sterling was a major source as defined in Rule 336.1211(1) and hence was subject to Rules 336.1210 until a ROP / Title V synthetic minor permit was obtained (July 17, 2013)		

Under the State of Michigan's Air Pollution Control law and the federal Clean Air Act, a Renewable Operating Permit (ROP) program has been developed and implemented in Michigan. This program requires major sources of air emissions to obtain a facility-wide air use permit. This permit serves as a mechanism for consolidating and clarifying all air pollution control requirements which apply to the source. Rule 210(5) of Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451), requires major sources to submit an application to the Department of Environmental Quality (DEQ), Air Quality Division (AQD) not more than 12 months after a stationary source commences operation as a major source, as defined by Rule 211(1)(a) of Act 451. Based on the commencement of operation of Sterling Performance, Inc., located at 54420 Pontiac Trail, Milford, Michigan 48381-4344, an application for a ROP should have been submitted according to the schedule stated above. To date, the AQD has not received this application. This constitutes a violation of Rule 210(1) of Act 451 which requires that a source not operate any emission units at a source required to obtain a ROP unless a timely and administratively complete application has been received by the DEQ. As a result of the failure to submit a timely and administratively complete application in accordance with the requirements of Rule 210(5) of Act 451, this facility has failed to obtain an "application shield".

As a result of the violation notice dated February 13, 2013, Sterling Performance submitted

an application for a synthetic minor permit. It is not necessary to submit an application for Renewable Operating Permit (ROP) because AQD already issued a Title V / ROP / MACT (FG-FACILITY, a single HAP < 9 & aggregate HAPs < 22.5 tons per year) synthetic minor PTI No. 43-13 dated July 17, 2013.

Please initiate actions necessary to correct the cited and **submit a written response to this Violation Notice by November 13, 2013** (which coincides with 21 calendar days from the date of this letter). The written response should include: the dates the occurred; an explanation of the causes and duration of the ; whether the ongoing; a summary of the actions that have been taken and are proposed to be taken to correct the and the dates by which these actions will take place; and what steps are being taken to prevent a reoccurrence.

If Sterling believes the above observations or statements are inaccurate or do not constitute violations of the applicable legal requirements cited, please provide appropriate factual information to explain your position.

Thank you for your attention to resolving the cited above and for the cooperation that was extended to me during my inspection of Sterling. If you have any questions regarding the or the actions necessary to bring this facility into compliance, please contact me at the number listed below.

Sincerely,

Iranna Konanahalli

Air Quality Division  
586-753-3741 or konanahalli@michigan.gov

ISK/DAC

Enclosures: Rules 2010 & 2011

cc/via email: Ms. Lynn Fiedler, DEQ  
Ms. Teresa Seidel, DEQ  
Mr. Thomas Hess, DEQ  
Mr. Chris Ethridge, DEQ  
Mr. Jason Wolf, DEQ

NAME Iranna Konanahalli DATE 03/10/15 SUPERVISOR CJE