

N7257  
MANILA

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

N725751013

FACILITY: ADVANCED TECHNOLOGY SERVICES		SRN / ID: N7257
LOCATION: 12400 BELDEN CT., LIVONIA		DISTRICT: Detroit
CITY: LIVONIA		COUNTY: WAYNE
CONTACT: Todd Buhler, Service Supervisor		ACTIVITY DATE: 10/15/2019
STAFF: Todd Zynda	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: October 15, 2019 Inspection		
RESOLVED COMPLAINTS:		

REASON FOR INSPECTION: Scheduled Inspection  
 INSPECTED BY: Todd Zynda, AQD  
 PERSONNEL PRESENT: Todd Buhler, Service Supervisor  
 FACILITY PHONE NUMBER: 734-523-8804  
 FACILITY FAX NUMBER: 734-3678114  
 FACILITY WEBSITE: www.advancedtech.com

**FACILITY BACKGROUND**

Advanced Technology Services (ATS), located at 12400 Belden Court, Livonia, Michigan, was identified as a targeted inspection during fiscal year (FY) 2019 due to the close proximity to ambient air trichloroethylene (TCE) concentrations that were detected as part of the Ford Beacon Project indoor air monitoring at addresses along Belden Court. For information regarding the ambient air sampling conducted as part of the Ford Livonia Transmission Plant remedial investigation, please see SRN A8645, MACES report CA\_A864547612.

On August 2, 2019 a violation notice was issued to ATS for in the installation of torch type burn-off unit and for installed rain cap on the permitted burn-off oven (see facility file for correspondence). This report summarizes a follow up inspection for FY 2020.

ATS repairs motors and gear boxes for various clients throughout the United States. The facility currently has 15 employees and operates from 7:00 AM to 3:30 PM, Monday through Friday.

Facility operations consist of disassembling motors and repair. During motor repair the varnish on the winding inside the motor may be burned off using a burn-off unit. The burn-off unit is permitted under Permit to Install (PTI) 95-03. The facility operates a varnish dip tank (to recoat the motor winding), a paint booth, 2 solvent based cold cleaners, 3 soap based cleaners, and various repair benches and motor testing stations.

**OUTSTANDING CONSENT ORDERS**

None

**OUTSTANDING VNs**

None

**INSPECTION NARRATIVE**

On October 15, 2019, AQD staff, Todd Zynda, conducted an inspection of ATS. The purpose of the inspection was to determine 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; Michigan Department of Environment, Great Lakes, and Energy, Air Quality Division (EGLE-AQD) Rules; and the conditions of PTI 95-03.

During the inspection, Mr. Todd Buhler, Service Supervisor, provided information and a tour of facility operations. During the opening meeting, facility operations and PTI 95-03 were discussed. Following the opening meeting a walkthrough of the facility was conducted.

The inspection began with observation of the shipping and receiving area. This area contained motors to be repaired and repaired motors staged for shipment. The shipping and receiving area contained storage shelving with parts and two heated (100°F) soap based cleaners. The shipping and receiving area also contained the removed the torch type burn-off unit that was documented in violation notice dated August 2, 2019. According to Mr. Buhler the facility has no need for the torch type unit and the he hopes to sell it. In the meantime, the unit will be stored at this location, disconnected.

Following observation of the shipping and receiving area, the former varnish dip tank was observed. The tank measured approximately 4 feet long by 4 feet wide by 4 feet high and was equipped with a cover/lid. The varnish dip tank was approximately half full (2 feet deep). According to Mr. Buhler the larger 4 feet by 4 feet by 4 feet tank is no longer used and hasn't been used in approximately 10 years. The varnish in that tank has solidified and is unusable. The facility currently uses a 20 gallon drum of varnish for dipping. Email correspondence from the previous inspection from ATS on July 31, 2019 indicates that the facility last purchased varnish in January 2018 (10 gallons total).

Next the benches/work areas were observed where motors are evaluated and rebuilt. Any potential emissions (use of cleaners, light machining, etc.) from the benches/work areas are released to the general in plant environment.

Following observation of the bench/work areas the process area was observed. The process area houses three soap based heated cleaners (2 small units and 1 larger rack type unit). Additionally, two solvent based cold cleaners are located in this area. During the inspection the lids were closed and instructions were posted. The solvent based cold cleaners are not heated or agitated. The process area also one burn-off unit. The unit is a batch type natural gas fired burn-off oven and is permitted by PTI 95-03. During the inspection the unit was not in operation. According to Mr. Buhler the burn-off oven is used approximately 1 to 2 times a week. The stack was observed during the inspection and was observed to discharge unobstructed vertically. During the previous inspection the stack was observed with a rain cap, which has since been removed. The violation regarding stack requirements in the letter dated August 2, 2019 is now considered resolved.

The location of the former natural gas fired torch type unit was also observed. The gas lines are now capped. The violation regarding torch type burn-off unit in the letter dated August 2, 2019 is now considered resolved.

Following observation of the burn-off unit, the paint booth and aerosol can puncture unit was observed. The paint booth exhausts through a vertical stack at roof level. The booth was observed with filters in place. The aerosol can puncture unit was approximately 20 to 25 gallons and is a Safety-Kleen product.

The process area also includes a glove box sand blast unit. The blast unit does not use water. Emissions are maintained inside the glove box unit and captured in a drum for disposal.

The process area contains some indoor machining equipment (saws, lathes, drill presses, etc.). Any potential emissions are released to the general in-plant environment.

The tour concluded with observation of the spindle laboratory. The laboratory includes a vibration test stand that includes a dust collector ("smog hog") that captures any potential emissions (oil mist) from vibration testing. During high speed spindle testing the bearing is not sealed with lubrication. Drops of oil are added externally to the bearing for lubrication. During the test the high speed spindle creates an oil mist that is captured by the dust collector. The dust collector vents to the general in-plant environment. According to Mr. Buhler, the spindle testing is discontinued at this time.

## **APPLICABLE RULES/PERMIT CONDITIONS**

### **PTI 95-03**

Permit conditions have been paraphrased for brevity. Please see PTI 95-03 for conditions in their entirety.

### **EUBURNOFF**

SC 1.1. **NOT EVALUATED.** There shall be no visible emissions from EUBURNOFF. During the inspection the unit was not in operation.



SC 1.2. **COMPLIANCE.** Shall burn only natural gas in EUBURNOFF. The unit operates exclusively on natural gas.

SC 1.3, 1.4, 1.5, and 1.13. **COMPLIANCE.** Shall not process any material in EUBURNOFF other than cured paints, oil or grease on metal parts, racks or hangars. Shall not use EUBURNOFF for thermal destruction or removal of rubber, plastics, uncured paints, or any other materials containing sulfur or halogens such as plastisol, polyvinyl chloride, or Teflon. Shall not load any transformer cores, which may be contaminated with PCB-containing dielectric fluid, wire or parts coated with lead or rubber, or any waste materials such as paint sludge or waste powder coatings into EUBURNOFF. Shall maintain a current listing of the chemical composition of each material processed in EUBURNOFF. According to Mr. Buhler the EUBURNOFF is only used to burn-off the varnish on the motor windings. As part of the previous inspection on July 2, 2019, the facility provided the Safety Data Sheet (SDS) for the varnish used at the facility. It is assumed that the varnish burned off motors in repair is similar in composition. The SDS indicates the varnish contains diallyl phthalate (5-10%) and dicumyl peroxide (1-5%). The facility also provided the SDS for another material that is burned off using the burn-off oven (Hotmelt Adhesive - Technomelt Supra 614C). The contents of the hotmelt adhesive are paraffin waxes and hydrocarbon waxes (10-30%) and rosin esters (5-10%).

SC 1.6, 1.7, 1.8, 1.11. **COMPLIANCE.** Shall not operate EUBURNOFF unless the secondary chamber or afterburner is installed, maintained and operated in a satisfactory manner. Satisfactory operation of the secondary chamber or afterburner includes maintaining a minimum temperature of 1400°F and minimum retention time of 0.5 seconds. Shall not operate EUBURNOFF unless an automatic temperature control system for the primary and secondary chamber or afterburner is installed, maintained, and operated in a satisfactory manner. Shall not operate EUBURNOFF unless an interlock system that shuts down the primary chamber burner when the secondary chamber or afterburner is not operating properly, is installed, maintained and operated in a satisfactory manner. Temperature records to be maintained. The facility appears to be meeting the above conditions based on design information provided as part of the PTI application and temperature records provided. The facility provided wheel charts of after burner temperature for July 23, 2019 through September 30, 2019. The charts provided indicate that the minimum temperature of 1400°F is maintained during operation. During the previous inspection it was recommended that the facility use a new chart for each day of operation. The facility has implemented this change.

SC 1.9 and 1.10. **COMPLIANCE.** Shall install, calibrate, maintain, and operate in a satisfactory manner a device to continuously monitor the temperature in the burn-off oven secondary chamber or afterburner and record the temperature at least every 15 minutes. Shall calibrate the thermocouples associated with the primary and secondary chamber at least once per year. The facility monitors the afterburner temperature as required (as demonstrated by the wheel logs). The facility provided a calibration record of both the oven temperature and afterburner temperature (conducted on July 12, 2019). During the previous inspection, the facility also provided records of thermocouple replacement on March 20, 2017.

SC 1.12. **COMPLIANCE.** Shall keep, in a satisfactory manner, records of the date, duration, and description of any malfunction of the control equipment, any maintenance performed and any testing results for EUBURNOFF. During the previous inspection, the facility provided initial startup records and recent maintenance conducted on March 20, 2017 (solenoid valve replacements, thermocouple replacement) and September 3, 2014 (stack maintenance). Email correspondence dated October 28, 2019 indicates that the only other maintenance was the removal the rain cap (replacement with cap that vents unobstructed vertically).

SC 1.14. **COMPLIANCE.** Exhaust gases from EUBURNOFF shall be discharged unobstructed vertically upwards to the ambient air with a maximum diameter of 10 inches at an exit point and not less than 32 feet above ground surface. The facility is now in compliance with this condition after removing the rain cap.

## **EXEMPT EQUIPMENT**

### Cold Cleaners

The cold cleaners at the facility are exempt from PTI requirements under the following rule.

R336.1281(2)(h): "The requirement to obtain a PTI does not apply to cold cleaners that have an air/vapor interface of not more than 10 square feet."

During the previous inspection, the facility provided the SDS for the cold cleaners. The cold cleaner is not heated during use and has a vapor pressure of less than 0.2 millimeters mercury (mmHg) or 0.0039 pounds per

square inch [psi]). During the inspection the cold cleaner appeared to be in compliance with the applicable requirements of R336.1707.

The parts washer at the facility is not subject to 40 CFR Part 63, Subpart T– National Emission Standards for Halogenated Solvent Cleaning. The material used in the cleaner does not contain any of halogenated HAPs as defined in §63.460.

#### Aqueous Based Parts Washers

Soap based washers appear to be exempt from PTI requirements under the following rule.

R336.1281(2)(k): “The requirement to obtain a PTI does not apply to aqueous based parts washers”.

Per R336.1101(q) “Aqueous based parts washer” means a tank containing liquid with a volatile organic compound content of less than 5 %, by weight, and at a temperature below its boiling point that is used to spray, brush, flush, or immerse metallic and/or plastic objects for the purpose of cleaning or degreasing.

The SDS (provided during the previous inspection) for the material used in the washers appears to meet the definition.

#### TCE Aerosol Cleaner

The use of TCE cleaner used in a 20 ounce aerosol can as described in the attached email dated July 16, 2019 appears to be exempt from PTI requirements under the following rule.

R336.1285(2)(hh): The requirement to obtain a PTI does not apply to a process that uses only hand-held aerosol spray cans, including the puncturing and disposing of spray cans. The facility operates a spray can puncturing unit for disposal.

According to the Mr. Buhler, the TCE aerosol is used in the general in-plant environment and is disposed of using the spray can puncturing unit.

#### Paint Booth Coating Operations

The coating operations (using 20 ounce aerosol cans) at the facility appears to be exempt from PTI requirements under the following rule.

R336.1287(c): The requirement to obtain a PTI does not apply to a surface coating line if all the of the following conditions are met:

- The coating use rate is not more than 200 gallons as applied, minus water, per month
- Any exhaust system that serves only coating spray equipment is supplied with a dry filter control
- Monthly coating use records are maintained on file the most recent 2-year period and are made available to the department upon request.

During the inspection the paint booth was observed with dry filters in place. The facility provided paint purchasing records for 2018 and 2019. Record indicate that paint usage is significantly less than 200 gallons per month.

#### Varnish Dip Tank

The varnish dip tank appears to be exempt from PTI requirements under the following rule.

R336.1287(c): The requirement to obtain a PTI does not apply to a surface coating line if all the of the following conditions are met:

- The coating use rate is not more than 200 gallons as applied, minus water, per month
- Any exhaust system that serves only coating spray equipment is supplied with a dry filter control
- Monthly coating use records are maintained on file the most recent 2-year period and are made available to the department upon request.



Varnish coating is conducted in the general in-plant environment, therefore dry filter control is not applicable. According to the facility the varnish use rate is less than 20 gallons per year. Email correspondence from ATS on July 31, 2019 indicates that the facility last purchased varnish in January 2018 (10 gallons total), indicating that usage is significantly less than 200 gallons per month.

#### Machining Equipment and Glove Box Sand Blast Unit

The machining equipment (saws, lathes, grinders, etc.) and the glove box sand blast unit (enclosed, vents indoors) at the facility appear to be exempt from PTI requirements under the following rule.

R336.1285(2)(l)(vi)(B): "Equipment for carving, cutting, routing, turning, drilling, machining, sawing, surface grinding, sanding, planing, buffing, sand blast cleaning ... which has emissions that are released only into the general in-plant environment."

#### Vibration Test Stand

The vibration test stand spindle testing appears to be exempt under the following rule.

R336.1285(2)(i): "Equipment used exclusively for bending...spinning...hot or cold metals."

During the testing, the spindle is spinning at a high speed which generates oil mist. Any potential emissions are controlled by the facility "smog hog" which vents to the general in-plant environment. The facility has stated that this operation is now idled.

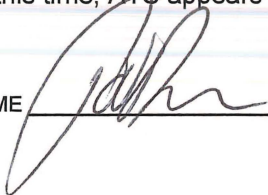
#### **MAERS REPORT REVIEW**

The facility is not required to submit MAERS.

#### **FINAL COMPLIANCE DETERMINATION**

At this time, ATS appears to be in compliance with PTI 95-03 and applicable air quality regulations.

NAME



DATE

10/30/19

SUPERVISOR

JK