

P0344
MANILLA

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

P034443118

FACILITY: GROUND EFFECTS, LLC		SRN / ID: P0344
LOCATION: 15200 COMMERCE DR NORTH, DEARBORN		DISTRICT: Detroit
CITY: DEARBORN		COUNTY: WAYNE
CONTACT: Jack Preston , Plant Manager		ACTIVITY DATE: 01/11/2018
STAFF: Todd Zynda	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Scheduled Inspection		
RESOLVED COMPLAINTS:		

REASON FOR INSPECTION: Scheduled Inspection

INSPECTED BY: Todd Zynda, AQD

PERSONNEL PRESENT: Jack Preston, Plant Manager; Grover Thomas, Environmental Engineer, Brooks

Pattison, Quality Manager

FACILITY PHONE NUMBER: 313-462-2290

FACILITY WEBSITE: www.gfxltd.com

FACILITY BACKGROUND

Ground Effects LLC (Ground Effects) completes spray-on bed liners for the Ford F-150. Ground Effects is located in the City of Dearborn, at 15200 Commerce Drive North in a primarily industrial and commercial area. The nearest residential property is located approximately 850 feet to the west southwest.

Currently the facility has approximately 170 employees. The facility operates two 10-hour shifts, Monday through Friday, 1 shift on Saturday, and one shift on Sunday. Hours are subject to change depending on the Ford F-150 production.

The facility operates the spray-on bed liner coating lines under permit to install (PTI) 59-12A. The permit includes enforceable limits for hazardous air pollutants (HAPs) to restrict the facility's potential to emit (PTE) to less than the National Emission Standards for Hazardous Air Pollutants (NESHAP), Part 63, Subpart M and less than the major source threshold to opt out of the Renewable Operating Permit (ROP) program.

PROCESS OVERVIEW

The facility operates three spray-on bed liner coating lines. Each coating line contains its own designated spray booth, where the spray-on bed liner is applied robotically. The spray-on bed liner application process consists of two component coating application. Component A consists of urethane pre-polymer which reacts with amines in Component B to form a thick protective coating. Prior to coating application, the beds are prepared by washing with an isopropyl alcohol (IPA) solution (Prep Wash). The exterior portion of the vehicle that does not receive spray coating, is tarped and taped off to protect the exterior finish. The bonding agent, which previously used to be hand painted on prior to the paint booth, is now applied robotically in the spray booth, prior to Component A and B application. Following application of the spray-on bed liner, the trucks are air dried before transporting to the customer (Ford).

The facility also operates a parts washer and a small enclosed cabinet for grinding residual pieces of spray-on bed liner for reuse during touch-up.

COMPLAINT/COMPLIANCE HISTORY

There are no complaints for this facility on file.

During the inspection on January 28, 2016, the facility was determined to be in noncompliance with several emission limits of PTI 59-12 (VOC limits and hexamethylene-1,6-diisocyanate limit). In addition, the cold cleaner at the facility was not in compliance with R336.1707(3)(a) and R336.1707(4). On February 29, 2016 a violation notice was issued for the identified violations. The violations were resolved through the issuance of PTI 59-12A on November 22, 2017 and the removal of the heated cold cleaner.

During the inspection on August 15, 2013, the facility was determined to be in compliance with applicable permit conditions and regulations.

OUTSTANDING CONSENT ORDERS

None

OUTSTANDING VNs

None

INSPECTION NARRATIVE

On January 11, 2018 the Michigan Department of Environmental Quality (MDEQ) Air Quality Division (AQD) inspector, Mr. Todd Zynda, conducted an inspection of Ground Effects. During the inspection, Mr. Jack Preston, Plant Manager, Mr. Grover Thomas, Environmental Engineer, and Mr. Brooks Pattison, Quality Manager provided information and a tour of facility operations relating to air quality permits and regulations. The inspection was conducted to determine the facility's compliance with the Natural Resources and Environmental Protection Act (NREPA), Act 451, Part 55 and PTI 59-12A.

At approximately 2:00 PM, AQD staff, Mr. Todd Zynda, arrived onsite and was greeted by Mr. Preston, Mr. Thomas, and Mr. Pattison. During the opening meeting the facility operations and permit requirements were discussed. An inspection check list was provided to the facility and record keeping requirements were discussed. Facility records were provided via email on January 24, 2018.

Following discussions of permit conditions and record keeping requirements, a tour of the facility was provided. The tour began with observation of the washing area. When the trucks enter the facility they are hand wiped down with an isopropyl alcohol solution (Prep Wash). Following the wash, the trucks enter the "masking" area, where they are tarped and taped off. Within the "masking area" the beds are lightly sanded by hand to break the topcoat of the manufacturer's finish. According to Mr. Preston, this allows for better bonding of the spray-on bed liner to the trucks finish.

The trucks are then staged to have the beds coated in one of three coating booths. Within each spray booth, the bonding agent and liner components are robotically applied. Each booth closes completely prior to application. Each booth is heated and maintained at approximately 95 degrees Fahrenheit (°F). Each booth is stacked individually and exhausts at roof level. During the inspection, filters appeared to be in place in each booth.

Following observation of the spray booths, storage of raw and waste material storage areas were observed. During the inspection, materials were stored in closed containers.

The tour concluded with observation of the cold cleaner (parts washer) area. The facility has removed the previous heated parts washer. The facility now uses approximately six 8-gallon steel dip tanks with All Solve. Each steel tank has a surface area of less than 2 square feet. The facility has posted instruction for the cleaning station. Each tank containing All Solve has a company standard of approximately 3.5 gallons or about 4 inches liquid depth.

During the inspection, the stacks at roof level were not observed at roof level. According to Mr. Preston, there have been no changes to the stacks since the previous inspection on January 28, 2016. Visible observation of the stacks from ground level appeared to confirm this statement.

During the inspection the small sand blasting cabinet used for grinding was not observed. Based on the previous inspection, any emissions from the sand blasting cabinet are released to the general in-plant environment.

APPLICABLE RULES/PERMIT CONDITIONS

PTI 59-12A was issued on November 22, 2017. The Special Conditions (SC) are listed as appropriate. For brevity, permit conditions and the language of federal and state rules have been paraphrased.

[FG-CoatingLns](#)

SC I. 1. **COMPLIANCE.** VOC emissions shall be less than 52.2 tons per year on a 12-month rolling time period. The facility provided 12-month rolling records for 2017. The highest 12-month rolling VOC emissions occurred at the end of December 2017 at 22.46 tons.

SC III. 1 through 4. **COMPLIANCE.** Storage, capture of waste materials, disposing of spent filters and handling of materials to reduce fugitive emissions. During the inspection the facility appeared to meet all of these conditions.

SC IV. 1 and 2. **COMPLIANCE.** Exhaust filters are installed and maintained. HVLP applicators or comparable technology used for coating application. During the inspection exhaust filters were in place. Robotic application appears to be the HVLP or comparable technology.

SC V. 1 and SC VI.2. **COMPLIANCE.** Shall determine VOC content of any coating using Method 24. Upon written approval by the AQD Supervisor, the permittee may determine the VOC content from manufacturer's formulation data. The facility provided correspondence dated March 23, 2018 regarding Method 24 analysis. According to the correspondence, the manufacturer of the coating, Ultimate Linings Limited, submitted the two-component coating for Method 24 analysis to an independent testing laboratory, American Research and Testing Inc. According to the laboratory report attached to the correspondence, "At room temperature, this two part product could not be mixed sufficiently before curing, and produced an exotherm during cure that interfered with obtaining an accurate starting mass of mixture. For the same reason, density of the mixture could not be measured. Therefore, no results can be reported for EPA Method 24."

The facility provided the SDS and/or formulation data for material used. Within the January 24, 2018 submittal the facility requests using manufacturer's data in lieu of Method 24. Based on the Method 24 correspondence received on March 23, 2018, the AQD accepts this method.

SC VI. 1. **COMPLIANCE.** Shall complete all required calculations in an acceptable format. The facility appears to be maintaining required calculations and records.

SC VI. 3. **COMPLIANCE.** Shall keep the following information on a calendar day basis for each coating line and FG-CoatingLns separately.

- Gallons of each material used and reclaimed.

- VOC content of each material as applied.

- VOC mass emission calculations determining the monthly emission rate per calendar month.

- VOC mass emission calculations determining the annual emission rate in tons per 12-month rolling time period.

The facility currently does not reclaim any material. The records provided satisfy record keeping requirements.

SC VII. **UNKNOWN.** Shall notify the AQD within 30 days after completion or the installation of the new coating lines. Written notification could not be located in Detroit District files.

SC VIII. 1 through 4. **COMPLIANCE.** Maximum exhaust dimensions of 42 inches and minimum height above ground of 29 feet. During the previous inspection on January 28, 2016, the stacks visually appeared to meet these requirements at roof level. Measurements were not collected. During the inspection on January 11, 2018 the stacks were observed from ground level and appeared unchanged.

FG-Facility

SC I. 1 and 2. **COMPLIANCE.** HAP emissions shall be less than 8.9 tons per year on an individual HAP basis and less than 22.4 tons per year on an aggregate HAP basis. 12-month rolling HAP emissions were provided for 2017. The maximum HAP emissions occurred at the end of January 2017 at 0.99 tons.

SC V. 1. **COMPLIANCE.** Shall determine HAP content of any material using manufacturer formulation data. Upon request from AQD, shall verify HAP formulation data using EPA Test Method 311. At this time, AQD has not requested testing. The facility provided SDS for materials used that indicates HAP content.

SC VI. 1. **COMPLIANCE.** Shall complete all required calculations in an acceptable format. The facility appears to be maintaining required calculations and records.

SC VI. 2. **COMPLIANCE.** Shall maintain a current listing from the manufacturer of the chemical composition of each material. The facility provided SDS for each material containing this information.

SC VI. 3. **COMPLIANCE.** Shall keep the following on a calendar month basis.

Gallons or pounds of each HAP containing material used.

Gallons or pounds of each HAP containing material reclaimed.

HAP content, in pounds per gallon or pounds per pound.

Individual and aggregate HAP emission calculations determining the monthly emission rate of each in tons per calendar month.

Individual and aggregate HAP emission calculations determining annual emission rate on a 12-month rolling basis.

The facility currently does not reclaim any material. The records provided satisfy record keeping requirements.

PERMIT TO INSTALL EXEMPT EQUIPMENT

Grinding Cabinet

The grinding cabinet appears to be exempt from PTI requirements under the following rule.

R336.1285(2)(l)(vi)(B): "The requirement to obtain a PTI does not apply to...equipment for carving, cutting, routing, turning, drilling, machining...etc. metal, plastic, etc. and emissions are released only to the general in-plant environment."

Cold Cleaner

The parts washers at the facility are defined as cold cleaners per R336.1103(aa). The cleaning material used is All Solve. Each parts washer has an air/vapor interface of less than 2 square feet.

The parts washer appears to be 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."

The parts washer is subject to R336.1707 for new cold cleaners. The vapor pressure of ALL SOLVE is 45 Pascal (0.0065 psi). The cold cleaners are not heated or agitated.

R336.1707(3)(a) – **COMPLIANCE** - a cover shall be installed and closed whenever parts are not being handled in the cleaner. During the inspection the cold cleaner lids were closed.

R336.1707(4) – **COMPLIANCE** – Written operational procedures shall be posted in an accessible, conspicuous location near the cold cleaner. The facility appears to meet this requirement. A copy of the instructions was provided as part of the records submittal.

40 CFR Part 63, Subpart M – National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products

Ground Effects is not subject to the Subpart M per §63.3881(b) as the facility is not major for HAPs. PTI 59 -12A contains enforceable conditions limiting Ground Effect's PTE to less than 10 tpy for individual HAPs and less than 25 tpy for any combination of HAPs.

40 CFR Part 63, Subpart T – National Emission Standards for Halogenated Solvent Cleaning

The parts washer at the facility is not subject to Subpart T. The material used in the cleaner does not contain any of halogenated HAPs as defined in §63.460.

APPLICABLE FUGITIVE DUST CONTROL PLAN CONDITIONS


Not applicable.

MAERS REPORT REVIEW

MAERS submittal for 2016 was submitted on time and approved with no changes.

FINAL COMPLIANCE DETERMINATION

At the time of the inspection, this facility appears to be in compliance with PTI 59-12A and air quality regulations.

NAME 

DATE 3/26/18

SUPERVISOR JK