

B3241  
MAWILADEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION  
ACTIVITY REPORT: Scheduled Inspection

B324141621

FACILITY: FORD MOTOR CO BROWNSTOWN		SRN / ID: B3241
LOCATION: 25555 PENNSYLVANIA RD, ROMULUS		DISTRICT: Detroit
CITY: ROMULUS		COUNTY: WAYNE
CONTACT: Arthur La Chapelle , Site Management Operations		ACTIVITY DATE: 08/03/2017
STAFF: Jill Zimmerman	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Target Inspection		
RESOLVED COMPLAINTS:		

DATE OF INSPECTION : 8/3/2017  
TIME OF INSPECTION : 2:00 pm  
LEVEL OF INSPECTION : II  
NAICS CODE : 423120  
EPA POLLUTANT CLASS : VOC  
INSPECTED BY : Jill Zimmerman  
PERSONNEL PRESENT : Arthur LaChapelle, Site Management Operations  
FACILITY PHONE NUMBER : 734-942-6125  
FACILITY EMAIL : alachap1@FORD.com

**FACILITY BACKGROUND**

Ford Motor Company Brownstown Parts Redistribution Center operates this facility as a warehouse and a distribution center for automotive parts. The facility was built in 1968 and opened in 1970. Most automotive parts are stored in shelves in the warehouse building. Metal panels such as fenders, hoods and doors are electrically coated (E-coat) to prevent rusting.

Located in Romulus at the intersection of Beech Daly Road and Pennsylvania Road, the facility operates the warehouse area 24 hours per day, six days per week. The E-coat line and batch clean oven operates one shift per day five days per week. The facility is about 3 million square feet.

**COMPLAINT/COMPLIANCE HISTORY**

No complaints have been received regarding this facility. No Letters of Violation have been issued regarding this facility.

**PROCESS EQUIPMENT AND CONTROLS**

Untreated parts such as fenders, door panels, and other automotive parts are brought to the facility on semi-trucks or rail cars. The metal parts are coated with E-coat, which will prohibit rust. The metal parts are loaded onto a racked conveyor system. The parts are washed in a phosphate bath. This bath is heated to about 120 degree F to allow the phosphates stick to the steel. The parts are rinsed in rinsing stations. Next, the parts are dipped in the E-coat tank. The E-coat is about 90 percent water, and ten percent solids. The solids are made up of resin and paste, with 8.5 parts resin and 1.0 parts paste. Solids are electrically charged and this charge deposits the solids onto the parts. The parts then pass through a cure oven. The cure oven, which is made up of ten heating zones, operates on natural gas at about 350 degrees F. The parts pass through the oven, which is about 3 times the length of the building. The parts cure in the oven for about 20 minutes. Finally, the parts are inspected and packaged. Parts are stored onsite until needed.

**INSPECTION NARRATIVE**

I arrived at the facility at 2:00 pm and was greeted by Mr. Arthur LaChapelle, site management operations. Mr. LaChapelle and I began to discuss the plant process. Records required by permits 308-99C were reviewed and collected. No changes have been made to



the process since the last inspection.

Next, we took a plant tour to see the process. The majority of the plant operates as a warehouse with packaged parts stored on large shelves. The E-coat process was operating during the inspection. The coating is 90 percent water and 10 percent coating materials. The coating materials consist of 8.5 parts resin and 1.0 parts paste. Two water heaters are used to heat the phosphate bath. Both have operation capacity of 20.9 MMBTU per hour and are powered by natural gas. The facility operates three boilers used to heat the building and non-process water. All the boilers operate on natural gas. Two boilers operate at 2.929 MMBTU per hour and the third boiler operates at 0.75 MMBTU per hour. Waste generated from the dip tank consists of filters used to purify the E-coating liquid. The waste is considered non-hazardous and is disposed on in a 10-foot long roll off box.

### **APPLICABLE RULES/PERMIT CONDITIONS**

All boilers and hot water tanks are exempt from permitting by Rule 282 (b)(i). The E-coat line is permitted under permit 308-99C, which was issued September 29, 2016. The special conditions are as follows:

#### **EU-COAT**

I. Emission Limits:

1. Compliance – During 2016, the e-coat line emitted about 9.1 tons VOC which is below the permit limit of 17.1 TPY.

II. Material Limits

1. Compliance – VOC content, converted to the proper ratio in the coating would equate to a VOC content in the coating (minus water) of 0.41 pounds per gallon, which is less than the 1.2 pounds per gallon limit.

III. Process/Operational Restrictions

1. Compliance – All waste material is captured and stored properly.

IV. Design/Equipment Parameters

1. NA

V. Testing/Sampling

1. NA

VI. Monitoring/Recordkeeping

1. Compliance – All records through the month of July 2017 were calculated and up to date during the August 3, 2017 onsite inspection.
2. Compliance – The facility maintains a list of MSDS for all materials used in the process.
3. Compliance – Proper records are maintained at the facility. A sample of the monthly records for May, June, and July is attached to this report.

VII. Reporting

1. NA

VIII. Stack / Vent Restrictions

1. Compliance – The facility has not modified any of the stacks since the installation at the proper height.

## IX. Other Requirements

1. NA

## FGFACILITY

## I. Emission Limits

1. Compliance – Based on a review of the records, the facility has emitted less than 29,000 tons of CO<sub>2</sub>e for a 12-month rolling time period for every month in at least the last two years.

## II. Material Limits

1. Compliance – Based on a review of MAERS for 2016, the facility used less than 300 MMSCF of natural gas, which is less than the permitted limit of 1,250 MMSCF.

## III. Process / Operational Restrictions

1. NA

## IV. Design / Equipment Parameters

1. NA

## V. Testing

1. NA

## VI. Monitoring / Recordkeeping

1. Compliance – All records were up to date during the onsite inspection
2. Compliance – The facility maintains a record for all of the CO<sub>2</sub>e emissions both monthly and on a 12-month rolling time period. A copy of these records is attached to this report.
3. Compliance – The facility maintains the fuel usage record. A copy is attached to this report.
4. Compliance – The monthly and 12-month rolling time period records for fuel usage is maintained and attached to this report.

## VII. Reporting

1. NA

## VIII. Stack / Vent Restrictions

1. NA

## IX. Other Requirements

1. NA

**MAERS REPORT REVIEW**

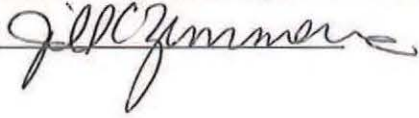
This report was submitted on time. Upon reviewing the attached calculations for EU-ECOAT, I discovered that the VOC emission calculations for CP524 and CK39C were incorrect. The pounds of VOC emissions calculated for CP524 were reported as 10,208 gallons with a density of 1.03 pounds of VOC per gallon for a total of 10,514 pounds of VOC. The facility reported this value as 10,862 pounds VOC. The pounds of VOC emissions calculated for CK39C were reported as 660 gallons with a density of 5.68 pounds of VOC per gallon for a total of 3,748.8 pounds of VOC. The facility reported this value as 1,874 pounds VOC. The VOC emissions for this emission unit were corrected from 16,605 pounds VOC to 18,133

pounds VOC based on these corrected calculations. All of the other reported emissions appear to have been reported accurately.

**FINAL COMPLIANCE DETERMINATION**

Ford Motor Company Brownstown Parts Redistribution Center is in compliance with all state and federal regulations as well as all permit conditions.

NAME



DATE

9/26/17

SUPERVISOR

