

B2064  
Maui  
Washtenaw

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

B206429321

FACILITY: FORD MOTOR CO/RAWSONVILLE PLANT		SRN / ID: B2064
LOCATION: 10300 TEXTILE RD, YPSILANTI		DISTRICT: Jackson
CITY: YPSILANTI		COUNTY: WASHTENAW
CONTACT: Kim Gamble , Plant Environmental Compliance Engineer (PECE)		ACTIVITY DATE: 05/07/2015
STAFF: Diane Kavanaugh-Vetort	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Major Source. Conducted complete scheduled compliance inspection, PCE of FCE.		
RESOLVED COMPLAINTS:		

Contact: Kim Gamble, [kgamble3@ford.com](mailto:kgamble3@ford.com), 734-484-9258

On May 7, 2015, I conducted a complete scheduled compliance inspection (PCE/FCE) of the Ford Motor Company, Rawsonville Plant, (Ford) located in Ypsilanti, MI. The purpose of the inspection is to determine the facility compliance status with the applicable federal and state Air Pollution Control regulations, specifically Act 451, Natural Resources and Environmental Protection, Part 55, Air Pollution Control, the administrative rules, and the conditions of Ford's Renewal Operating Permit (ROP) MI-ROP-B2064-2012. The ROP contains a Source-Wide limit for hazardous air pollutants (HAP) and corresponding fuel usage limits. Ford also has emergency diesel and natural gas internal combustion engine generators subject to Area Source Maximum Achievable Control Technology (MACT) standard (40 CFR 63 Subpart ZZZZ). One of Ford's natural gas boilers is subject to the New Source Performance Standard (40 CFR 60 Subpart Dc). Ford submitted ROP Certifications timely and reported no deviations during the previous 12 month period (2014).

Upon my arrival to the area I conducted a driving observation on the roads surrounding the facility. I did not observe any visible emissions, odors, or anything unusual during the observation. I then entered the Main Security Gate 1 off Textile Rd. I presented identification and signed in at the guard station. I was required to watch a safety video and was given a yellow security vest required to be worn during the inspection. Safety glasses and safety shoes are also required.

On this date I met with Kim Gamble, Environmental Engineer, and Mark Wherrett, Senior Environmental Engineer. A pre-inspection meeting was held and we discussed the purpose of the inspection. I provided Kim with the DEQ Brochure, Environmental Inspections, Rights and Responsibilities. Our discussion included Ford Rawsonville's current operating status, changes made since the last compliance inspection and renewal issuance, applicable federal requirements (Area Source MACT) and required recordkeeping in the ROP. During the past year Ford requested the Voiding of the obsolete AQD Consent Order No. 25-2000 issued when the Company was Visteon and for process equipment that is no longer at the facility. AQD has voided the CO.

I discussed Ford's 2014 MAERS and support documentation with Kim briefly. It is noted they submitted recordkeeping summaries for all EU/FG for the 12 months ending December 2014. For today's inspection I requested and obtained Ford's Source wide HAP records and Boiler (powerhouse) records for the 12 months period ending March 2015.

Kim and Mark explained that Ford is currently operating 3 shifts, main production shift is 7 am to 3:30 pm, another shift is 3 pm to 11 pm and overnight from 11 pm to 7 am. They currently employ approximately 800 people. Kim stated Ford's operational changes since the prior inspection April 2013 are:

1. Transmission Oil pump is an oil pump manufacturing area that includes machining equipment each ducted to a combined exhaust to a dust collector, Monroe Environ pulse jet with pressure drop monitoring gauge and exhausts in-plant. This production area is fully operational. Per Kim, the machining process uses very small amounts of oil fluids, and parts are run through an in-line parts washer located at the end of the line. Material Safety Data Sheet (MSDS) for Oxynul RP-13632 Water Dilutable Cleaner/Corrosion Inhibitor was obtained (ATTACHED TO THIS REPORT).
2. Kitting line assembly is still operating and has expanded. Since the previous inspection, a Locktite adhesive-type material was added under Rule 287(c) exemption. During my review of Ford's 2014 MAERS I observed this was added as an EU and material and usage was added appropriately. Per Kim, Ford ended its usage and it is no longer on site.
3. In-line Vehicle Sequencing (ILVS) consists of a series of operations, essentially "build scheduling" to correspond to just in time manufacturing. Parts are assembled and packaged so that they are ready to

go into the assembly plant operations much more quickly and easily. These operations have expanded and take up large areas of the facility at this time.

The above equipment/areas have been identified by Ford as either not air pollution emitting or as exempt processes.

#### **MISCELLANEOUS:**

Some EU/FG in the current ROP have been removed or dismantled in place since it was issued. These are: EUSILICONE, EUVIDEOJET (FGRULE287(c)), EUPOLYESTERRESIN (FGRULE290) and all the EUJDLEANCELLS except Cell #4. **EUEPOXY** has been added to this list as removed as well. It is in the ROP due to applicable requirements from a Permit To Install. Ford also sold and removed the long idled Cogeneration unit from the Powerhouse back in @2013.

#### **RECORDKEEPING AND EMISSIONS CALCULATIONS**

##### **Source-Wide Conditions - Hazardous Air Pollutants (HAPS):**

Ford's ROP has permitted HAP limits therefore they are considered to be an Area Source pursuant to the National Emission Standards for HAPs (NESHAPS), otherwise referred to as Area Source MACTs. Many of Ford's HAP emitting emission units are either Rule 287(c) or Rule 290 exempt. They are maintaining a Facility-wide database with spreadsheets tracking individual and aggregate HAP usage rates and emissions. Ford's policy is to review all materials, identify all HAPs, and obtain approval from the facility engineer prior to changing or adding a material. Kim told me she is continuing to be responsible for working with their other Departments and reviewing material changes and updating the spreadsheets.

I requested and obtained a copy of their facility wide usage and emission calculation spreadsheets. Individual and aggregate HAP monthly usage and emission totals are presented by EU/FG. The 12 month rolling time period totals are on a separate spreadsheet. Kim gave me a copy for year 2014, and one for January - March 2015.

**FG-FACILITY:** requires compliance with HAP emission limits (less than 10 tpy and 25 tpy) and contains one Material Usage limit (Natural gas). Natural Gas is limited to 1,200 million cubic feet (MMCF) per 12 month rolling time period under this flexible group.

- For 12 months ending December 2014, Ford used 246,905 MCF Natural Gas/yr < Limit = COMPLIANT.
- For 1st quarter 2015 Ford used 107,063 MCF natural gas.
- For month ending March 2015 Ford's records indicate **aggregate** HAP emissions are 4.5 tons per year determined on a 12 month rolling time period < Emission Limit 25 tons, COMPLIANT.

The applicable monthly limits complying with R287(c) and R290 are also documented on the spreadsheets for the 2014 calendar year and 1st Q 2015.

- **Rule 287(c)** Sources are EUMAINTPAINTBTH, EUJDLEANCELL4 and EU-HF35KITTING (New = Locktite material).
- **Rule 290** Sources are EUCOP, EUMISCCLEANING1 and EUSAFETYSTRIP. Kim also gave me copies of separate R287 and R290 Source Tables (See attached to this report). COMPLIANT with the respective limits of these rules.

#### **FGBOILERS-1,2,4,5 (POWERHOUSE)**

Ford spreadsheets discussed above also incorporate the required recordkeeping of fuel usage and emissions calculation for FGBOILERS-1,2,4,5. For the 1st quarter 2015 records show that Boiler 1 and Boiler 2 did not operate. Boiler 4 operated for 1236 hours and used 26,407 MCF natural gas. Boiler 5 operated 906 hours and used 34 MMCF. (NOTE: Boiler 3 has long been disconnected/rendered inoperable in place)

FGBOILERS are natural gas fired and Boilers 1, 2, and 5 have fuel oil capability however the oil has long been disconnected and there is no oil on site. Natural gas has been the only fuel used for many years. The original PTI contained fuel oil because the boilers were dual fired and required the associated SO<sub>2</sub>, and NO<sub>x</sub> emission limits, and fuel oil sulfur content. Long ago Ford "blanked off" the fuel lines to the boilers. During the most recent renewal issued August 2012, Ford decided to maintain the permit conditions and this capability designated as for emergency back-up only.

Ford ROP limits FGBOILERS to operate on fuel oil for no more than 48 hours per year. One consideration was the Area Source Boiler MACT which does not apply to gas only fuel boilers. It also doesn't apply to gas fired units that only use oil periodically during gas curtailment and supply emergencies or for periodic testing not to exceed 48 hours.

The FGBOILERS 1,2,4,5 emission limit for NOx is **78.5 tons per year determined on a 12 month rolling time period**. Ford's 2014 records report NOx emissions as **7.95 tons per year**. NOx emissions for 1st Q 2015 = **7.42 tons per year**. COMPLIANT.

#### EUEPOXY

During the previous inspection I was informed this process was discontinued and ceased operation on March 8, 2013. The equipment has been removed.

#### FGEMERGRICE

Ford operates existing (3) emergency and (3) fire pump, reciprocating internal combustion engines (RICE). Three are diesel Compression Ignition (CI) and three are natural gas Spark Ignition (SI). FGEMERGRICE contains applicable requirements of the Area Source RICE MACT ZZZZ. These EUs are considered to be Rule 201 exempt pursuant to Rule 285(g). Ford reports 5 of the 6 RICE ran for testing hours 1 to 6.5 hrs. Kim informed me they have since replaced one of the Natural gas RICE with a new Unit.

#### COMPLIANCE INSPECTION - FACILITY WALK THROUGH

Kim and Mark accompanied me during the inspection of the facility. We walked through a large portion of the plant interior. During the previous inspection in late 2011 I inspected the significant EU/FG in the ROP, and the WWTP and separate buildings containing the truck maintenance garage, the Powerhouse/Boilers, and portions of the roof, therefore I did not observe all those areas today. During today's inspection I observed the EU/FG with significant changes since the renewal was issued August 2012. I also inspected the Powerhouse and I observed the newest RICE located in the Powerhouse.

During the Powerhouse inspection we spoke to the Boiler operator. He indicated to me that they rotate boilers approximately every 3 to 4 weeks. In the Winter it may be Boilers 4 and 5 are operated and in the summer Boilers 1 and 2.

I inspected the maintenance shop containing numerous small Heat Treating furnaces. During the 2011 inspection these were identified and Ford researched the area and submitted a statement that these are believed to be Grandfathered. Each small furnace has an exhaust stack and operates uncontrolled. They utilize an oil quench and are for maintenance use only (non production). Kim and I discussed her adding these stacks to her Rule 301 visible emissions observations and she agreed to do this. VE 20% appears to be the only applicable requirement at this time.

#### EXEMPT PROCESSES

*FGCOLDCLEANERS*: various exempt Safety Kleen units are located throughout the facility. Ford appears to be tracking and reporting emissions appropriately.

#### *FGRULE 287(c)*:

- EUMAINTPAINTBTH - spray booth with filters. I observed this process was not operating during inspection. Ford recordkeeping indicates < 200 gallon/mo limit. COMPLIANT
- EUJDLEANCELL4 - I did not observe this today. Ford recordkeeping indicates < 200 gallon/mo limit. COMPLIANT

#### *FGRULE 290*:

- EUMISC-CLEANING1 - Mineral spirits and other solvents used to clean surfaces for maintenance cleaning and painting. Ford recordkeeping reports < 1000 lbs VOC/month COMPLIANT
- EUCOP - Coil on Plug. I observed one of three process lines was operating during inspection. Kim explained they are currently using only the Oven#1 electric oven. Prior inspection I was told they were not using the natural gas oven due to lower production. The lines are described as: Coil parts are loaded into epoxy pallets. Coils are cast with two part epoxy under vacuum. Coils are then cured at 80-150C for 8 hours and then unloaded. During the inspection I observed the Tote Heaters, these are separate ovens with ambient exhaust stack. The resin filled totes are heated to a fluid temperature for easier handling. There are two coil part Curing Ovens, each with separate ambient exhaust stack.

- EUCOP uses a two part resin **Huntsman XH 5716 Hardener** and **Hunstman XR 5715 Epoxy Resin**. Jan, Feb and March emissions shown are 303, 313, and 302 lbs VOC/mo < 1000 lbs VOC/mo. COMPLIANT. I requested and obtained a Product Data Sheet from Kim for this coating (ATTACHED TO THIS REPORT). Ford claims a material waste credit. For 2014 to date, report used 70670 lbs of Hardener, and 282,744 lbs of Resin. Ford claimed 21453 lbs of waste Resin (credit) and therefore 261291 lbs is used for emission calculations. COMPLIANT
- EUSAFETYSTRIP - Ford refers to this as COP Parts Washing. It is a large "Graymills Unit", with applicable requirement of Rule 707. Uses diethylene glycol and is heated but still considered a cold cleaner. Temperature is monitored and recorded. It has a hood and stack exhaust with carbon control (trays of loose carbon regularly checked and replaced). < 1000 lbs VOC/mo. COMPLIANT
- EUMODPUMPSTANDS modular fuel pump flow stands #1 to #5 considered Rule 283(c) exempt. VOC emissions are reported in MAERS and a 95% CE is used. Emissions are ducted to a bag filter (@95% CE) and then through a carbon tray. PMs of controls are conducted every 240 days. COMPLIANT
- Ford also has two 1500 gallon diesel fuel underground storage tanks used for diesel fleet and trucks.

### COMPLIANCE SUMMARY

AQD has determined that Ford Rawsonville is in substantial compliance with the federal and state applicable requirements contained in their ROP MI-ROP-B2064-2012. Several emission units have been removed and other exempt equipment has been added since the recent renewal ROP was issued (August 2012). Overall recordkeeping is complete and accurate. ROP Certification/Deviation reports have been received timely and no deviations have been reported. MAERS was received timely and support documents indicate compliance and have been verified during this inspection.

NAME Marianne Lauer

DATE 5/29/15

SUPERVISOR [Signature]