B3350
MANILA

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

B335055667

FACILITY: FCA US LLC – Trenton Engine Complex		**SRN / ID:** B3350
LOCATION: 2300 VAN HORN RD, TRENTON		**DISTRICT:** Detroit
CITY: TRENTON		**COUNTY:** WAYNE
CONTACT: Amy Berendt , Environmental Specialist		**ACTIVITY DATE:** 10/01/2020
STAFF: Todd Zynda	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MAJOR
SUBJECT: Scheduled Inspection		
RESOLVED COMPLAINTS:		

REASON FOR INSPECTION: Scheduled Inspection

INSPECTED BY: Todd Zynda, AQD; Sam Liveson, AQD

PERSONNEL PRESENT: Amy Berendt, Environmental Specialist; Bob Moore; EHS Lead; Christopher Cvetkovski, Environmental Coordinator; Chukwuemeka Ben Bosah, Corporate Air Compliance

FACILITY PHONE NUMBER: (734) 783-2242

FACILITY WEBSITE: www.fcagroup.com

FACILITY BACKGROUND

FCA US LLC (FCA) owns and operates the Trenton Engine Complex (TEC) located at 2300 Van Horn Road, Trenton, Wayne County, Michigan. The facility consists of two contiguous engine manufacturing operations (Trenton Engine [North] Plant and Trenton South Plant) located on 136 acres. The Trenton South Plant encompasses 822,000 square feet, while the Trenton Engine Plant encompasses 2.1 million square feet. Manufacturing at TEC includes engine component machining, assembly, and testing of engines. At the time of this report the south plant primarily produces the 3.6-liter V-6 Pentastar engine, but also has the capability to produce a 3.2-liter V-6 Pentastar engine. The north plant is considered a launch plant and is currently producing a variation of the 3.6-liter V-6 Pentastar along with production of a Ferrari block line. The boundaries of the facility are as follows: to the south is the Trenton Wastewater Treatment Plant; to the east is a storage yard and residential area; to the southwest is a commercial business (landscaping/nursery); to the west is a storage yard and residential areas; and to the immediate north is green space.

The facility currently has approximately 1,300 employees. TEC operates two 10 hour shifts, six days a week with an occasional seventh day if needed.

TEC is subject to Title 40 of the Code of Federal Regulations (CFR), Part 70, because the potential to emit carbon monoxide (CO) exceeds 100 tons per year. No emissions units at the facility are currently subject to the Prevention of Significant Deterioration (PSD) regulations of Part 18,

Prevention of Significant Deterioration of Air Quality of Act 451, because at the time of New Source Review permitting the potential to emit of CO was less than 250 tons per year. However, the facility is a major stationary source under PSD due to the facility wide potential emissions of CO greater than 250 tons per year.

PROCESS OVERVIEW

TEC operates five gasoline engine dynamometers, two natural gas fired engine hot test stands, two boilers, three emergency generators, miscellaneous combustion equipment (heating and ventilation units, heaters, hot water generators, steam generators), wet machining equipment (boring, grinding using various cutting oils and lubricants), and dry machining (boring, grinding) equipment under renewable operating permit (ROP) MI-ROP-B3350-2014b, which has an effective date of January 10, 2014 (revised April 14, 2015 and March 22, 2016). The ROP renewal application was received on June 20, 2018.

COMPLAINT/COMPLIANCE HISTORY

Between April 7 and April 9, 2009, three complaints were received regarding "musty" odors from the facility. The facility was notified of the complaints. As a result of the complaints, the facility cleaned three washers, and determined that four exhaust stacks could be improved by cleaning. The odor issue was considered resolved.

During August 5, 2009, August 26, 2011, January 29, 2013, December 15, 2014, October 20, 2016, and November 14, 2018 the facility was inspected and was determined to be in compliance with permit conditions and applicable federal and state regulations.

OUTSTANDING CONSENT ORDERS

None

OUTSTANDING VIOLATION NOTICES

None

INSPECTION NARRATIVE

On October 1, 2020, the Michigan Department of Environment, Great Lakes, and Energy (EGLE) Air Quality Division (AQD) inspectors, Mr. Todd Zynda and Mr. Sam Liveson, conducted an inspection of FCA TEC at 2300 Van Horn Road, Trenton, Michigan. During the inspection, Ms. Amy Berendt, Environmental Specialist, Mr. Bob Moore, EHS Lead, and Mr. Christopher Cvetkovski, Environmental Coordinator provided information and a tour of facility operations relating to air quality permits. Mr. Chukwuemeka Ben Bosah, FCA Corporate Air Compliance was present via conference call during the opening and closing meeting. The inspection was conducted to determine the facility's compliance with the Natural Resources and Environmental Protection Act (NREPA), Act 451, Part 55, and ROP No. MI-ROP-B3350-2014b.

At approximately 12:30 PM, Mr. Todd Zynda (AQD) and Mr. Sam Liveson (AQD) arrived onsite and performed outside observations. No visible emissions were observed at the facility. Odors were not detected. At 12:45 PM Mr. Zynda and Mr. Liveson entered the facility, stated the purpose for the inspection, and were greeted by Ms. Berendt.

During the opening meeting, the facility operations and MI-ROP-B3350-2014b conditions were discussed. During the opening meeting, an inspection checklist outlining ROP requirements was discussed. Ms. Berendt and Mr. Dashner provided records maintained to demonstrate compliance with conditions within MI-ROP-B3350-2014b.

Additionally, during the opening meeting, a discussion was held regarding the ROP renewal and information requested by the AQD via email on September 2, 2020 (see attached). A discussion was held regarding the facility potential to emit for criteria pollutants and applicability of compliance assurance monitoring (CAM) for machining operations and associated particulate matter control. A follow up email was sent to the FCA on October 5, 2020 requesting the additional information discussed (see attached).

Following the opening meeting, a tour of the facility was provided. During the inspection both the north and south plant were observed.

The inspection began with observation of the south plant. While in the south plant, machining lines and particulate control equipment were observed. During the inspection, the inches of water on control unit pressure gauges indicated that the equipment was operating within "normal" ranges. The particulate control equipment (wet or dry) vents to the general in-plant environment.

In addition to the in-plant exhausted particulate control equipment, the filter galleries for the Block Line and Crank line were observed. Chips produced by machining operations are handled at these locations and are controlled by an oil mist collector. Similar to the in-plant particulate control equipment at the facility, the pressure drop is monitored by a pressure gauge that is marked for normal operation conditions. During the inspection, the stacks associated with the filter galleries (Heads, Blocks, Cranks) were attempted to be observed from the west surface lot along the railroad tracks. During the inspection it was observed that the Head Gallery and Crank Gallery are stack individually for each oil mist collector. Although the stack for the Block Gallery was not observed it is also assumed that it is stacked individually. MI-ROP-B3350-2014b indicates one stack (SV-WETMACHINE) for all three lines. This issue will be discussed in greater detail under FG-WETMACHINES, SC VIII, below.

The south plant contains the hot test stands and dynamometers. During the inspection, the hot test stands were not in operation. Natural gas usage for the three hot test stands is metered through one gauge.

Following observation of the filter galleries, the dynamometers were observed. During the inspection, the dynamometer test cells were not in operation. The stacks and gasoline storage tanks were not observed from the outside due to a heavy rain event. According to Ms. Berendt, the stacks and tanks have not been modified since the previous inspection. Each dynamometer exhausts individually through a dedicated stack. The five dynamometers use gasoline from one 3,000 gallon above ground storage tank located adjacent to the dynamometer cells on the exterior wall.

Following observation of the south plant the north plant and powerhouse were observed. The north plant machining equipment and particulate control equipment was observed. North plant machining lines and particulate control equipment were observed. Pressure drop is monitored on each particulate control unit. The normal operating range of inches of water is indicated on each pressure gauge. During the inspection, the inches of water on control unit pressure gauges indicated that the equipment was operating within "normal" ranges.

Following observation of the north plant, the boiler powerhouse was observed. During the inspection, the boilers were not operating. According to Ms. Berendt the boilers do not operate during the warmer months.

Within the powerhouse, the emergency engine fire pump located in the basement of the powerhouse was observed. The engine is equipped with a non-resettable hour meter. According to Ms. Berendt, the engine is slated for replacement in the coming year. The engine was observed as "tagged out".

The remaining emergency engines were not observed during the inspection. During the January 2013 pre-ROP inspection it was verified that emergency engines are equipped with a non-resettable hour meter. According to Ms. Berendt, those engines are not scheduled to be changed out.

APPLICABLE RULES/PERMIT CONDITIONS

ROP No. MI-ROP-B3350-2014b

MI-ROP-B3350-2014b special conditions (SC) are listed as appropriate. For brevity, permit conditions and the language of federal and state rules have been paraphrased.

EU-YARD

SC I. 1. COMPLIANCE. Visible emissions from all truck traffic shall not exceed 5 percent opacity. During the inspection truck traffic was viewed and visible emissions were not observed.

SC III. 1. COMPLIANCE. Shall operate EU-YARD in compliance with fugitive emissions control plan for all plant roadways, the plant yard, etc. The facility currently operates EU-YARD in accordance with the fugitive dust plan.

FG-WETMACHINE

SCs I. 1. and 2. COMPLIANCE. PM10 emission shall not exceed 0.0018 grains per dry standard cubic foot (dscf) or 1.21 pounds per hour (pph). Compliance with these emission limits is demonstrated through monitoring and record keeping requirements under SCs VI. 1 and 2. The oil mist collectors are maintained through the Total Maintenance System (TMS). During the previous inspections it was demonstrated that within the TMS, maintenance on each piece of equipment is recorded and scheduled. TMS records are maintained and were provided.

SC I.3. COMPLIANCE. Visible emissions not to exceed a six-minute average of 5 percent opacity. During the inspection, the two stacks for the FG-WETMACHINE were observed. There was zero opacity from the Crank Line stack and Heads stack.

SCs III. 1, IV.1. COMPLIANCE. Shall not operate FG-WETMACHINE unless oil mist collectors installed, maintained, and operated in a satisfactory manner. Preventative maintenance plan is implemented and maintained. The facility conducts preventative maintenance on the mist collectors per the PMP. Maintenance is tracked in the TMS.

SC VI. 1 and 2. COMPLIANCE. Shall keep record of control device name and filter change schedule. Shall keep records on control device (ID, inspection date, maintenance activities, etc.). The facility maintains the required records through the TMS software.

SC VIII. PENDING FURTHER ACTION. During the inspection it was determined that each filter gallery is stacked individually versus the one stack listed under SC VIII (SV-WETMACHINE). Additionally, within correspondence dated October 19, 2020, the facility provided stack dimensions for each of the three lines as follows.

EU-BLOCK_GALLERY_C-11: 23 inch diameter, 45.3 feet above ground

EU-CRANK-GALLERY_E-11: 23 inch diameter, 61.9 feet above ground

EU-HEAD-GALLERY_L-12: 23 inch diameter, 45.2 feet above ground

The ROP lists only one stack for all three lines with a maximum diameter of 25.2 inches, and minimum height of 55 feet above ground surface. Upon further review, it was determined that stack conditions of SV-WETMACHINE originated in permit to install (PTI) 95-07. Review of the PTI 95-07 evaluation form indicates that at the time of permitting there were 9 identical stacks for exhausting both wet machining and dry machining operations. Dry machining operations that vent to outside ambient air are not present at the facility and were not included in ROP MI-ROP-B3350-2014. The air dispersion analysis summary, that is attached to the permit evaluation for PTI 95-07 indicates a stack height of 45 feet and diameter of 25.2 inches. Due to this discrepancy between the modeling information and permit evaluation with the stack parameters in PTI 95-07, it is unknown if the 55 feet stack height was an error in the issuance of PTI 95-07, or if there were 3 stacks modeled. In correspondence dated October 21, 2020, FCA has stated that the process of submitting a PTI application to correct the issue has been initiated. At this time, the AQD agrees with this approach of clarifying the FG-WETMACHINE stack parameters through a PTI application.

FG-HOT_TEST

The hot test stands at the facility are not subject to 40 CFR 63 Subpart PPPPP for Engine Test Cells/Stands because the facility is not a major source of HAPs. On October 29, 2019 FCA notified that EU-HOT-TEST3 is no longer in use and has been removed from the facility.

SC I. 1. COMPLIANCE. The 12-month rolling NOx emissions shall not exceed 1.42 tons per year (tpy). The maximum 12-month rolling NOx emission from January 2018 to August 2020 occurred at the end of August 2018 at 0.46 tons.

SC II. 1. COMPLIANCE. Natural gas usage shall not exceed 1.0 million cubic feet (MMCF) per 12-month rolling time period. The maximum 12-month rolling natural gas usage from January 2018 to August 2020 occurred at the end of August 2018 at 324,512 cubic feet.

SC IV.1. COMPLIANCE. Shall install, calibrate, maintain, and operate device to monitor natural gas usage. The facility meets this requirement. Records are maintained on a monthly basis.

SC VI. 1. COMPLIANCE. Shall keep in a satisfactory manner, monthly and previous 12-month natural gas use records. The appropriate records are maintained.

SC VI. 2. COMPLIANCE. Shall keep in a satisfactory manner, monthly and 12-month NOx emission records. The appropriate records are maintained.

SC VIII. NOT EVALUATED. The stacks were not observed during the inspection.

FG-DYNOS

The dynamometers at the facility are not subject to 40 CFR 63 Subpart PPPPP for Engine Test Cells/Stands because the facility is not a major source of HAPs.

SC I. 1 and SC V. 1. COMPLIANCE. The CO emission rate shall not exceed 3.12 pound per gallon of fuel (lb/gal). Verification of CO emission rates shall be conducted no later than one year prior to permit renewal. Testing was conducted on May 24, 2017 on EU-DYNO2. Measured emissions

were 2.87 lb CO per gallon fuel. The ROP does not include EU-DYNO2 within SC V.1. The AQD believes this is a typo and it will be corrected during the ROP renewal.

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SC I. 2. COMPLIANCE. The 12-month rolling CO emissions shall not exceed 210.6 tons per year. The maximum 12-month rolling CO emission from January 2018 through August 2020 occurred at the end of February 2018 at 132.9 tons.

SC I. 3 and SC V. 1. COMPLIANCE. The NOx emission rate shall not exceed 0.300 lb/gal. Verification of NOx emission rates shall be conducted no later than one year prior to permit renewal. Testing was conducted on May 24, 2017 on EU-DYNO2. Measured emissions were 0.240 lb NOx per gallon fuel. The ROP does not include EU-DYNO2 within SC V.1. The AQD believes this is a typo and it will be corrected during the ROP renewal.

SC I. 4. COMPLIANCE. The 12-month rolling NOx emissions shall not exceed 20.25 tons per year. The maximum 12-month rolling NOx emission from January 2018 through August 2020 occurred at the end of February 2018 at 12.78 tons.

SC II. 1 and SC VI.3. COMPLIANCE. Gasoline usage shall not exceed shall not exceed 48 gallons per hour. Compliance with this limit is demonstrated with monthly record keeping prorated to an hourly rate, unless the prorated rate exceeds 90% of the limit, at which time hourly records are required. The maximum gallons per hour rate between January 2018 through August 2020 was 6 gallons per hour or less; therefore, the facility may continue to record gasoline usage on a prorated rate.

SC II. 2. COMPLIANCE. Gasoline usage shall not exceed shall not exceed 135,000 gallons per 12-month rolling time period. The maximum 12-month rolling gasoline usage from emission from January 2018 through August 2020 occurred at the end of February 2018 at 85,213 gallons.

SC III. 1. COMPLIANCE. Shall not operate more than five dynamometer engine test cells at one time. The facility only has five test cells installed.

SC III. 2. COMPLIANCE. Shall burn only unleaded gasoline in FG-DYNOS. Correspondence from the fuel provider and the Safety Data Sheet (SDS) demonstrate that the gasoline is unleaded.

SC V. 1. COMPLIANCE. One year prior to permit renewal, permittee shall verify CO and NOx emission rates. Testing was completed on EU-DYNO2 on May 24, 2017. The ROP does not include EU-DYNO2 within SC V.1. The AQD believes this is a typo and it will be corrected during the ROP renewal.

SC VI. 1, 2, and 3. COMPLIANCE. Shall complete required calculations in an acceptable format. Shall maintain the following records: days of operation, gallons of unleaded gasoline used per month, and monthly/12-month rolling CO and NOx emissions. The facility maintains the required records.

SC VIII. COMPLIANCE. Exhaust stacks for DYNO1 through DYNO5 shall not exceed 33 inches in diameter and shall be at least 35.4 feet above ground surface. During the inspection, the stacks were not observed due to a heavy rain event. According to Ms. Berendt, the stacks are unchanged since the previous inspection. During the previous inspection, the exact measurements were not obtained, but the stacks appeared to be in compliance with design restrictions. Each dynamometer test cell is exhausted through an individual stack.

FG-COMBUSTION

SC I. 1. COMPLIANCE. The 12-month rolling NOx emissions shall not exceed 72.14 tons per year. The maximum 12-month rolling NOx emission from January 2019 through August 2020 occurred at the end of May 2020 at 17.12 tons.

SC I. 2. COMPLIANCE. The 12-month rolling CO emissions shall not exceed 60.60 tons per year. The maximum 12-month rolling CO emissions from January 2019 through August 2020 occurred at the end of September 2019 at 12.00 tons.

SC II.1 and SC III.1. COMPLIANCE. Natural gas usage shall not exceed 1,374 million cubic feet (MMCF) per 12-month rolling time period. Shall burn only natural gas. The maximum 12-month rolling natural gas usage from January 2019 through August 2020 occurred at the end of September 2019 at 280,123,000 cubic feet.

SC VI. 1, 2, and 3. COMPLIANCE. Shall keep complete calculations in acceptable format. Shall monitor and record the monthly natural gas usage in an acceptable format. The facility meets these monitoring and record keeping requirements.

FG-BLR1&BLR5

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Boilers 1 and 5 are not subject to any New Source Performance Standard (NSPS). Boiler 1 (60 MMBtu/hr) was installed in 1953 and Boiler 5 (180 MMBtu/hr) was installed in 1969. Boiler 1 is not considered subject to 40 CFR Part 60, Subpart Dc as the change from a coal burning boiler to a natural gas/no.2 fuel oil boiler does not constitute as a modification as defined in §60.2. Similarly, Boiler 5 is not considered subject to 40 CFR Part 60, Subpart Db, as the change from coal to natural gas/no.2 fuel oil does not constitute as a modification as defined in §60.2.

"*Modification* means any physical change in, or change in the method of operation of, an existing facility which increases the amount of any air pollutant (to which a standard applies) emitted into the atmosphere by that facility or which results in the emission of any air pollutant (to which a standard applies) into the atmosphere not previously emitted."

At the time of permitting (PTI No. 179-99) Boilers 1 and 5 were considered not subject to any NSPS. The change in fuel type does not qualify as a modification as defined under Part 60, and Boilers 1 and 5 are not subject to Subpart Dc or Db, respectively.

EU-BOILER1 and EU-BOILER5 are subject to the Maximum Achievable Control Technology (MACT) standards under the National Emission Standards for Hazardous Air Pollutants for Area Sources for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR Part 63 Subpart JJJJJJ, promulgated on March 21, 2011. The facility demonstrates compliance with the Subpart JJJJJJ by recording hours that liquid fuel is combusted.

SC I.1, 3 and 5, V.1. COMPLIANCE. CO emissions not to exceed 0.084 lb/MMBtu/hr. NOx emissions not to exceed 0.28 lb/MMBtu/hr. Shall verify the CO and NOx emission rates from FG-BLR1&BLR5 when burning natural gas. Testing was completed on November 28, 2017 (Boiler 1) and January 12, 2018 (Boiler 5). Average emissions were reported as follows: Boiler 1 - CO: 0.003 lb/MMBtu, NOx: 0.10 lb/MMBtu; Boiler 5 - CO: 0.006 lb/MMBtu, NOx: 0.11 lb/MMBtu.

SC IX. 1. COMPLIANCE. If any boiler combusts liquid fuel during periodic testing of boiler operation on liquid fuel or discretionary boiler operation using liquid fuel (i.e., not associated with periods of natural gas curtailment, gas supply interruption, or startups) for greater than a combined total of 48 hours during any calendar year, the boiler will no longer be considered a "gas-fired boiler" under the definition in 40 CFR Part 63.11237. The permittee will subsequently comply with all applicable requirements under 40 CFR Part 63 Subpart JJJJJJ (the "Boiler MACT for Area Sources") for the boiler." At the time of this report the facility has not combusted liquid fuel for the last two years.

The remaining conditions under FG-BLR1&BLR5 when burning fuel oil are not applicable. The facility did not combust fuel oil in the last two years.

FG-GAS-DISP

Storage tanks under FG-GAS-DISP are not subject to the NSPS 40 CFR 60 Subpart Kb as the tanks are less than 75 cubic meter (m3) or 19,812.9 gallons in size. The largest gasoline storage tank at the facility is 3,000 gallons.

The special conditions for FG-GAS-DISP were obtained from MACT standards under the National Emissions Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities promulgated in 40 CFR, Part 63, Subparts A and CCCCCC.

The facility maintains gasoline throughput for EU-GAS_TANK1 and EU-GAS_TANK2. According to the records the maximum throughput from January 2018 through August 2020 occurred at the end of November 2019 in EU-GAS_TANK2 at 9,200 gallons, which is less than the 10,000 gallon threshold. Therefore, the requirements for a gasoline dispensing facility (GDF) with a throughput less than 10,000 gallons, are applicable. The AQD is not the delegated authority for this area source MACT. Therefore, conditions were not evaluated for compliance.

FG-EMERG-RICE

Equipment under FG-EMERG-RICE is not subject to the NSPS 40 CFR 60 Subpart IIII- Standards of Performance for Stationary Compression Ignition Internal Combustion Engines or Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines because the date of the installation is prior to the affected date. The special conditions for FG-EMERG-RICE were obtained from MACT standards under the National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines promulgated in 40 CFR, Part 63, Subparts A and ZZZZ. The AQD is not the delegated authority for this area source MACT. Therefore, conditions were not evaluated for compliance.

FG-OTHERMACHINGLINES

SC I. 1. COMPLIANCE. PM emission rate shall not exceed 0.1 pounds per 1,000 pounds of exhaust gases calculated on a dry basis. The company has demonstrated during the ROP application correspondence that the machines are designed to meet the above limit (see ROP correspondence on May 2, 2013 for calculations). The facility demonstrates compliance with the above limit by implementing proper maintenance and operation of the equipment. During the previous inspection, the facility demonstrated that equipment is maintained through the TMS. Within the TMS, maintenance on each piece of equipment is recorded and scheduled. During the previous inspections, the facility provided a demonstration on how the software works, and the records that are maintained. The facility also operates the equipment through a Preventative Maintenance Plan (PMP). TMS records were provided.

SC IV. 1. COMPLIANCE. Shall not operate FG-OTHERMACHININGLINES unless the particulate control equipment is installed and operating properly. During the inspection, particulate control equipment was observed. Equipment appeared to be operating properly. Pressure drop is monitored on each unit. The normal operating range of inches of water is indicated on each pressure gauge. During the inspection, the inches of water on pressure gauges indicated that the equipment was operating within "normal" ranges.

SC IV. 2. COMPLIANCE. Shall not operate equipment unless the approved PMP is implemented and maintained. The facility operates under the PMP that was provided in the ROP application. The demonstration of the TMS during the inspection confirmed that the equipment is maintained according the PMP.

SC VI. 1. and 2. COMPLIANCE. Shall implement and maintain a routine check to ensure proper operation of the control equipment for each emission per the PMP. Shall keep an updated record of all emission units subject to Rule 331. The facility maintains compliance with SC VI. 1. and 2. through the TMS.

SC VI. 3. COMPLIANCE. Shall maintain calculations on file that demonstrate compliance with particulate emission limit. The facility provided calculations on May 2, 2013 as part of the initial ROP correspondence.

FG-RULE 290

The facility provided Rule 290 tracking sheets that demonstrate compliance with Rule 290 VOC emission limits. The facility tracks VOC emissions for adhesives, production inks, methanol, and isopropyl alcohol used on a monthly basis. VOC emissions for subject emission limits are less than the applicable Rule 290 monthly threshold.

FG-FACILITY

S I. 1. COMPLIANCE. The 12-month rolling CO emissions shall not exceed 271.4 tons per year. The maximum 12-month rolling CO emission from January 2018 through August 2020 occurred at the end of February 2018 at 142.6 tons.

SC I. 2. COMPLIANCE. The 12-month rolling NOx emissions shall not exceed 93.8 tons per year. The maximum 12-month rolling NOx emission from January 2018 through August 2020 occurred at the end of January 2018 at 17.5 tons.

Permit to Install Exempt Equipment

Engine Manufacturing Equipment

Engine manufacturing equipment appears to be exempt from PTI requirements per R336.1285(2)(l)(vi)(B) or (C). Emissions are either released to the general in-plant environment, or if released to outside ambient air are controlled by two stage filters within both the DCUs and MCUs. The AQD accepts the two stage filters as a demonstration of the permit exemption (mechanical precleaner and appropriately designed fabric filter).

Cold Cleaners

The facility operates six aqueous parts washers. The SDS provided indicates that the solution used in the parts washers does not contain VOCs. The parts washers appear to be exempt from PTI requirements under R336.1281(2)(k).

Fire Pumps and Emergency Engine

The facility operates two fire pumps and one emergency generator. The largest unit operates at 276 break horsepower. Based on calculations, 276 BHP power output rating is equivalent to 0.70 million British thermal units (MMBTU) rated input. At a 25% efficiency conversion, the maximum converted rating is approximately 2.8 MMBTU/hr. Based on the calculated rating, the fire pumps and emergency generator are exempt from PTI requirements under the following Rule.

R336.1285(2)(g): "Permit to install does not apply to...Internal combustion engines that have less than 10,000,000 Btu/hour maximum heat input."

Washers

The facility washers appear to be exempt from PTI requirement under R336.1281(2)(e). During the previous inspection, the facility provided the SDS for the material used. While the SDS provided indicates that solution used in the washer contains VOCs, the facility provided documentation that vapor pressure of the VOC constituent (ethanolamine) is less than 0.1 mmHg (see facility file).

APPLICABLE FUGITIVE DUST CONTROL PLAN CONDITIONS:

The facility currently operates under a fugitive dust plan as described above in EU-YARD. The fugitive dust plan outlines monthly sweeping activities and dust suppressant application, as necessary. Currently, all roadways and parking lots are swept monthly. The unpaved trailer area is swept as needed. During the inspection fugitive dust was not observed. At the time of the inspection the facility was determined to be in compliance with conditions of EU-YARD and the fugitive dust control plan.

MAERS REPORT REVIEW:

The 2019 MAERS report was submitted on time. The MAERS audit conducted in March 2020 was passed.

FINAL COMPLIANCE DETERMINATION:

At this time, this facility appears to be in compliance with MI-ROP-B3350-2014b and federal and state regulations. FCA plans to submit a PTI application for clarify the stack parameters for FG-WETMACHINE.

REASON FOR INSPECTION: Scheduled Inspection

INSPECTED BY: Todd Zynda, AQD; Sam Liveson, AQD

PERSONNEL PRESENT: Amy Berendt, Environmental Specialist; Bob Moore; EHS Lead; Christopher Cvetkovski, Environmental Coordinator; Chukwuemeka Ben Bosah, Corporate Air Compliance

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TEC is subject to Title 40 of the Code of Federal Regulations (CFR), Part 70, because the potential to emit carbon monoxide (CO) exceeds 100 tons per year. No emissions units at the facility are currently subject to the Prevention of Significant Deterioration (PSD) regulations of Part 18, Prevention of Significant Deterioration of Air Quality of Act 451, because at the time of New Source Review permitting the potential to emit of CO was less than 250 tons per year. However, the facility is a major stationary source under PSD due to the facility wide potential emissions of CO greater than 250 tons per year.

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During August 5, 2009, August 26, 2011, January 29, 2013, December 15, 2014, October 20, 2016, and November 14, 2018 the facility was inspected and was determined to be in compliance with permit conditions and applicable federal and state regulations.

OUTSTANDING CONSENT ORDERS

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OUTSTANDING VIOLATION NOTICES

None

INSPECTION NARRATIVE

On October 1, 2020, the Michigan Department of Environment, Great Lakes, and Energy (EGLE) Air Quality Division (AQD) inspectors, Mr. Todd Zynda and Mr. Sam Liveson, conducted an inspection of FCA TEC at 2300 Van Horn Road, Trenton, Michigan. During the inspection, Ms. Amy Berendt, Environmental Specialist, Mr. Bob Moore, EHS Lead, and Mr. Christopher Cvetkovski, Environmental Coordinator provided information and a tour of facility operations relating to air quality permits. Mr. Chukwuemeka Ben Bosah, FCA Corporate Air Compliance was present via conference call during the opening and closing meeting. The inspection was conducted to determine the facility's compliance with the Natural Resources and Environmental Protection Act (NREPA), Act 451, Part 55, and ROP No. MI-ROP-B3350-2014b.

At approximately 12:30 PM, Mr. Todd Zynda (AQD) and Mr. Sam Liveson (AQD) arrived onsite and performed outside observations. No visible emissions were observed at the facility. Odors were

not detected. At 12:45 PM Mr. Zynda and Mr. Liveson entered the facility, stated the purpose for the inspection, and were greeted by Ms. Berendt.

During the opening meeting, the facility operations and MI-ROP-B3350-2014b conditions were discussed. During the opening meeting, an inspection checklist outlining ROP requirements was discussed. Ms. Berendt and Mr. Dashner provided records maintained to demonstrate compliance with conditions within MI-ROP-B3350-2014b.

Additionally, during the opening meeting, a discussion was held regarding the ROP renewal and information requested by the AQD via email on September 2, 2020 (see attached). A discussion was held regarding the facility potential to emit for criteria pollutants and applicability of compliance assurance monitoring (CAM) for machining operations and associated particulate matter control. A follow up email was sent to the FCA on October 5, 2020 requesting the additional information discussed (see attached).

Following the opening meeting, a tour of the facility was provided. During the inspection both the north and south plant were observed.

The inspection began with observation of the south plant. While in the south plant, machining lines and particulate control equipment were observed. During the inspection, the inches of water on control unit pressure gauges indicated that the equipment was operating within "normal" ranges. The particulate control equipment (wet or dry) vents to the general in-plant environment.

In addition to the in-plant exhausted particulate control equipment, the filter galleries for the Block Line and Crank line were observed. Chips produced by machining operations are handled at these locations and are controlled by an oil mist collector. Similar to the in-plant particulate control equipment at the facility, the pressure drop is monitored by a pressure gauge that is marked for normal operation conditions. During the inspection, the stacks associated with the filter galleries (Heads, Blocks, Cranks) were attempted to be observed from the west surface lot along the railroad tracks. During the inspection it was observed that the Head Gallery and Crank Gallery are stack individually for each oil mist collector. Although the stack for the Block Gallery was not observed it is also assumed that it is stacked individually. MI-ROP-B3350-2014b indicates one stack (SV-WETMACHINE) for all three lines. This issue will be discussed in greater detail under FG-WETMACHINES, SC VIII, below.

The south plant contains the hot test stands and dynamometers. During the inspection, the hot test stands were not in operation. Natural gas usage for the three hot test stands is metered through one gauge.

Following observation of the filter galleries, the dynamometers were observed. During the inspection, the dynamometer test cells were not in operation. The stacks and gasoline storage tanks were not observed from the outside due to a heavy rain event. According to Ms. Berendt, the stacks and tanks have not been modified since the previous inspection. Each dynamometer exhausts individually through a dedicated stack. The five dynamometers use gasoline from one 3,000 gallon above ground storage tank located adjacent to the dynamometer cells on the exterior wall.

Following observation of the south plant the north plant and powerhouse were observed. The north plant machining equipment and particulate control equipment was observed. North plant machining lines and particulate control equipment were observed. Pressure drop is monitored on each particulate control unit. The normal operating range of inches of water is indicated on each pressure gauge. During the inspection, the inches of water on control unit pressure gauges indicated that the equipment was operating within "normal" ranges.

Following observation of the north plant, the boiler powerhouse was observed. During the inspection, the boilers were not operating. According to Ms. Berendt the boilers do not operate during the warmer months.

Within the powerhouse, the emergency engine fire pump located in the basement of the powerhouse was observed. The engine is equipped with a non-resettable hour meter. According to Ms. Berendt, the engine is slated for replacement in the coming year. The engine was observed as "tagged out".

The remaining emergency engines were not observed during the inspection. During the January 2013 pre-ROP inspection it was verified that emergency engines are equipped with a non-resettable hour meter. According to Ms. Berendt, those engines are not scheduled to be changed out.

APPLICABLE RULES/PERMIT CONDITIONS

ROP No. MI-ROP-B3350-2014b

MI-ROP-B3350-2014b special conditions (SC) are listed as appropriate. For brevity, permit conditions and the language of federal and state rules have been paraphrased.

EU-YARD

SC I. 1. COMPLIANCE. Visible emissions from all truck traffic shall not exceed 5 percent opacity. During the inspection truck traffic was viewed and visible emissions were not observed.

SC III. 1. COMPLIANCE. Shall operate EU-YARD in compliance with fugitive emissions control plan for all plant roadways, the plant yard, etc. The facility currently operates EU-YARD in accordance with the fugitive dust plan.

FG-WETMACHINE

SCs I. 1. and 2. COMPLIANCE. PM10 emission shall not exceed 0.0018 grains per dry standard cubic foot (dscf) or 1.21 pounds per hour (pph). Compliance with these emission limits is demonstrated through monitoring and record keeping requirements under SCs VI. 1 and 2. The oil mist collectors are maintained through the Total Maintenance System (TMS). During the previous inspections it was demonstrated that within the TMS, maintenance on each piece of equipment is recorded and scheduled. TMS records are maintained and were provided.

SC I.3. COMPLIANCE. Visible emissions not to exceed a six-minute average of 5 percent opacity. During the inspection, the two stacks for the FG-WETMACHINE were observed. There was zero opacity from the Crank Line stack and Heads stack.

SCs III. 1, IV.1. COMPLIANCE. Shall not operate FG-WETMACHINE unless oil mist collectors installed, maintained, and operated in a satisfactory manner. Preventative maintenance plan is implemented and maintained. The facility conducts preventative maintenance on the mist collectors per the PMP. Maintenance is tracked in the TMS.

SC VI. 1 and 2. COMPLIANCE. Shall keep record of control device name and filter change schedule. Shall keep records on control device (ID, inspection date, maintenance activities, etc.). The facility maintains the required records through the TMS software.

SC VIII. PENDING FURTHER ACTION. During the inspection it was determined that each filter gallery is stacked individually versus the one stack listed under SC VIII (SV-WETMACHINE). Additionally, within correspondence dated October 19, 2020, the facility provided stack dimensions for each of the three lines as follows.

EU-BLOCK_GALLERY_C-11: 23 inch diameter, 45.3 feet above ground

EU-CRANK-GALLERY_E-11: 23 inch diameter, 61.9 feet above ground

EU-HEAD-GALLERY_L-12: 23 inch diameter, 45.2 feet above ground

The ROP lists only one stack for all three lines with a maximum diameter of 25.2 inches, and minimum height of 55 feet above ground surface. Upon further review, it was determined that stack conditions of SV-WETMACHINE originated in permit to install (PTI) 95-07. Review of the PTI 95-07 evaluation form indicates that at the time of permitting there were 9 identical stacks for exhausting both wet machining and dry machining operations. Dry machining operations that vent to outside ambient air are not present at the facility and were not included in ROP MI-ROP-B3350-2014. The air dispersion analysis summary, that is attached to the permit evaluation for PTI 95-07 indicates a stack height of 45 feet and diameter of 25.2 inches. Due to this discrepancy between the modeling information and permit evaluation with the stack parameters in PTI 95-07, it is unknown if the 55 feet stack height was an error in the issuance of PTI 95-07, or if there were 3 stacks modeled. In correspondence dated October 21, 2020, FCA has stated that the process of submitting a PTI application to correct the issue has been initiated. At this time, the AQD agrees with this approach of clarifying the FG-WETMACHINE stack parameters through a PTI application.

FG-HOT_TEST

The hot test stands at the facility are not subject to 40 CFR 63 Subpart PPPPP for Engine Test Cells/Stands because the facility is not a major source of HAPs. On October 29, 2019 FCA notified that EU-HOT-TEST3 is no longer in use and has been removed from the facility.

SC I. 1. COMPLIANCE. The 12-month rolling NOx emissions shall not exceed 1.42 tons per year (tpy). The maximum 12-month rolling NOx emission from January 2018 to August 2020 occurred at the end of August 2018 at 0.46 tons.

SC II. 1. COMPLIANCE. Natural gas usage shall not exceed 1.0 million cubic feet (MMCF) per 12-month rolling time period. The maximum 12-month rolling natural gas usage from January 2018 to August 2020 occurred at the end of August 2018 at 324,512 cubic feet.

SC IV.1. COMPLIANCE. Shall install, calibrate, maintain, and operate device to monitor natural gas usage. The facility meets this requirement. Records are maintained on a monthly basis.

SC VI. 1. COMPLIANCE. Shall keep in a satisfactory manner, monthly and previous 12-month natural gas use records. The appropriate records are maintained.

SC VI. 2. COMPLIANCE. Shall keep in a satisfactory manner, monthly and 12-month NOx emission records. The appropriate records are maintained.

SC VIII. NOT EVALUATED. The stacks were not observed during the inspection.

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FG-DYNOS

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The dynamometers at the facility are not subject to 40 CFR 63 Subpart PPPPP for Engine Test Cells/Stands because the facility is not a major source of HAPs.

SC I. 1 and SC V. 1. COMPLIANCE. The CO emission rate shall not exceed 3.12 pound per gallon of fuel (lb/gal). Verification of CO emission rates shall be conducted no later than one year prior to permit renewal. Testing was conducted on May 24, 2017 on EU-DYNO2. Measured emissions were 2.87 lb CO per gallon fuel. The ROP does not include EU-DYNO2 within SC V.1. The AQD believes this is a typo and it will be corrected during the ROP renewal.

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SC I. 2. COMPLIANCE. The 12-month rolling CO emissions shall not exceed 210.6 tons per year. The maximum 12-month rolling CO emission from January 2018 through August 2020 occurred at the end of February 2018 at 132.9 tons.

SC I. 3 and SC V. 1. COMPLIANCE. The NOx emission rate shall not exceed 0.300 lb/gal. Verification of NOx emission rates shall be conducted no later than one year prior to permit renewal. Testing was conducted on May 24, 2017 on EU-DYNO2. Measured emissions were

0.240 lb NOx per gallon fuel. The ROP does not include EU-DYNO2 within SC V.1. The AQD believes this is a typo and it will be corrected during the ROP renewal.

SC I. 4. COMPLIANCE. The 12-month rolling NOx emissions shall not exceed 20.25 tons per year. The maximum 12-month rolling NOx emission from January 2018 through August 2020 occurred at the end of February 2018 at 12.78 tons.

SC II. 1 and SC VI.3. COMPLIANCE. Gasoline usage shall not exceed shall not exceed 48 gallons per hour. Compliance with this limit is demonstrated with monthly record keeping prorated to an hourly rate, unless the prorated rate exceeds 90% of the limit, at which time hourly records are required. The maximum gallons per hour rate between January 2018 through August 2020 was 6 gallons per hour or less; therefore, the facility may continue to record gasoline usage on a prorated rate.

SC II. 2. COMPLIANCE. Gasoline usage shall not exceed shall not exceed 135,000 gallons per 12-month rolling time period. The maximum 12-month rolling gasoline usage from emission from January 2018 through August 2020 occurred at the end of February 2018 at 85,213 gallons.

SC III. 1. COMPLIANCE. Shall not operate more than five dynamometer engine test cells at one time. The facility only has five test cells installed.

SC III. 2. COMPLIANCE. Shall burn only unleaded gasoline in FG-DYNOS. Correspondence from the fuel provider and the Safety Data Sheet (SDS) demonstrate that the gasoline is unleaded.

SC V. 1. COMPLIANCE. One year prior to permit renewal, permittee shall verify CO and NOx emission rates. Testing was completed on EU-DYNO2 on May 24, 2017. The ROP does not include EU-DYNO2 within SC V.1. The AQD believes this is a typo and it will be corrected during the ROP renewal.

SC VI. 1, 2, and 3. COMPLIANCE. Shall complete required calculations in an acceptable format. Shall maintain the following records: days of operation, gallons of unleaded gasoline used per month, and monthly/12-month rolling CO and NOx emissions. The facility maintains the required records.

SC VIII. COMPLIANCE. Exhaust stacks for DYNO1 through DYNO5 shall not exceed 33 inches in diameter and shall be at least 35.4 feet above ground surface. During the inspection, the stacks were not observed due to a heavy rain event. According to Ms. Berendt, the stacks are unchanged since the previous inspection. During the previous inspection, the exact measurements were not obtained, but the stacks appeared to be in compliance with design restrictions. Each dynamometer test cell is exhausted through an individual stack.

FG-COMBUSTION

SC I. 1. COMPLIANCE. The 12-month rolling NOx emissions shall not exceed 72.14 tons per year. The maximum 12-month rolling NOx emission from January 2019 through August 2020 occurred at the end of May 2020 at 17.12 tons.

SC I. 2. COMPLIANCE. The 12-month rolling CO emissions shall not exceed 60.60 tons per year. The maximum 12-month rolling CO emissions from January 2019 through August 2020 occurred at the end of September 2019 at 12.00 tons.

SC II.1 and SC III.1. COMPLIANCE. Natural gas usage shall not exceed 1,374 million cubic feet (MMCF) per 12-month rolling time period. Shall burn only natural gas. The maximum 12-month rolling natural gas usage from January 2019 through August 2020 occurred at the end of September 2019 at 280,123,000 cubic feet.

SC VI. 1, 2, and 3. COMPLIANCE. Shall keep complete calculations in acceptable format. Shall monitor and record the monthly natural gas usage in an acceptable format. The facility meets these monitoring and record keeping requirements.

FG-BLR1&BLR5

Boilers 1 and 5 are not subject to any New Source Performance Standard (NSPS). Boiler 1 (60 MMBtu/hr) was installed in 1953 and Boiler 5 (180 MMBtu/hr) was installed in 1969. Boiler 1 is not considered subject to 40 CFR Part 60, Subpart Dc as the change from a coal burning boiler to a natural gas/no.2 fuel oil boiler does not constitute as a modification as defined in §60.2.
Similarly, Boiler 5 is not considered subject to 40 CFR Part 60, Subpart Db, as the change from coal to natural gas/no.2 fuel oil does not constitute as a modification as defined in §60.2.

"*Modification* means any physical change in, or change in the method of operation of, an existing facility which increases the amount of any air pollutant (to which a standard applies) emitted into the atmosphere by that facility or which results in the emission of any air pollutant (to which a standard applies) into the atmosphere not previously emitted."

At the time of permitting (PTI No. 179-99) Boilers 1 and 5 were considered not subject to any NSPS. The change in fuel type does not qualify as a modification as defined under Part 60, and Boilers 1 and 5 are not subject to Subpart Dc or Db, respectively.

EU-BOILER1 and EU-BOILER5 are subject to the Maximum Achievable Control Technology (MACT) standards under the National Emission Standards for Hazardous Air Pollutants for Area Sources for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR Part 63 Subpart JJJJJJ, promulgated on March 21, 2011. The facility demonstrates compliance with the Subpart JJJJJJ by recording hours that liquid fuel is combusted.

SC I.1, 3 and 5, V.1. COMPLIANCE. CO emissions not to exceed 0.084 lb/MMBtu/hr. NOx emissions not to exceed 0.28 lb/MMBtu/hr. Shall verify the CO and NOx emission rates from FG-BLR1&BLR5 when burning natural gas. Testing was completed on November 28, 2017 (Boiler 1) and January 12, 2018 (Boiler 5). Average emissions were reported as follows: Boiler 1 - CO: 0.003 lb/MMBtu, NOx: 0.10 lb/MMBtu; Boiler 5 - CO: 0.006 lb/MMBtu, NOx: 0.11 lb/MMBtu.

SC IX. 1. COMPLIANCE. If any boiler combusts liquid fuel during periodic testing of boiler operation on liquid fuel or discretionary boiler operation using liquid fuel (i.e., not associated with periods of natural gas curtailment, gas supply interruption, or startups) for greater than a combined total of 48 hours during any calendar year, the boiler will no longer be considered a "gas-fired boiler" under the definition in 40 CFR Part 63.11237. The permittee will subsequently comply with all applicable requirements under 40 CFR Part 63 Subpart JJJJJJ (the "Boiler MACT for Area Sources") for the boiler." At the time of this report the facility has not combusted liquid fuel for the last two years.

The remaining conditions under FG-BLR1&BLR5 when burning fuel oil are not applicable. The facility did not combust fuel oil in the last two years.

FG-GAS-DISP

Storage tanks under FG-GAS-DISP are not subject to the NSPS 40 CFR 60 Subpart Kb as the tanks are less than 75 cubic meter (m3) or 19,812.9 gallons in size. The largest gasoline storage tank at the facility is 3,000 gallons.

The special conditions for FG-GAS-DISP were obtained from MACT standards under the National Emissions Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities promulgated in 40 CFR, Part 63, Subparts A and CCCCCC.

The facility maintains gasoline throughput for EU-GAS_TANK1 and EU-GAS_TANK2. According to the records the maximum throughput from January 2018 through August 2020 occurred at the end of November 2019 in EU-GAS_TANK2 at 9,200 gallons, which is less than the 10,000 gallon threshold. Therefore, the requirements for a gasoline dispensing facility (GDF) with a throughput less than 10,000 gallons, are applicable. The AQD is not the delegated authority for this area source MACT. Therefore, conditions were not evaluated for compliance.

FG-EMERG-RICE

Equipment under FG-EMERG-RICE is not subject to the NSPS 40 CFR 60 Subpart IIII- Standards of Performance for Stationary Compression Ignition Internal Combustion Engines or Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines because the date of the installation is prior to the affected date. The special conditions for FG-EMERG-RICE were obtained from MACT standards under the National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines promulgated in 40 CFR, Part 63, Subparts A and ZZZZ. The AQD is not the delegated authority for this area source MACT. Therefore, conditions were not evaluated for compliance.

FG-OTHERMACHINGLINES

SC I. 1. COMPLIANCE. PM emission rate shall not exceed 0.1 pounds per 1,000 pounds of exhaust gases calculated on a dry basis. The company has demonstrated during the ROP application correspondence that the machines are designed to meet the above limit (see ROP correspondence on May 2, 2013 for calculations). The facility demonstrates compliance with the above limit by implementing proper maintenance and operation of the equipment. During the previous inspection, the facility demonstrated that equipment is maintained through the TMS. Within the TMS, maintenance on each piece of equipment is recorded and scheduled. During the previous inspections, the facility provided a demonstration on how the software works, and the records that are maintained. The facility also operates the equipment through a Preventative Maintenance Plan (PMP). TMS records were provided.

SC IV. 1. COMPLIANCE. Shall not operate FG-OTHERMACHININGLINES unless the particulate control equipment is installed and operating properly. During the inspection, particulate control equipment was observed. Equipment appeared to be operating properly. Pressure drop is monitored on each unit. The normal operating range of inches of water is indicated on each pressure gauge. During the inspection, the inches of water on pressure gauges indicated that the equipment was operating within "normal" ranges.

SC IV. 2. COMPLIANCE. Shall not operate equipment unless the approved PMP is implemented and maintained. The facility operates under the PMP that was provided in the ROP application. The demonstration of the TMS during the inspection confirmed that the equipment is maintained according the PMP.

SC VI. 1. and 2. COMPLIANCE. Shall implement and maintain a routine check to ensure proper operation of the control equipment for each emission per the PMP. Shall keep an updated record of all emission units subject to Rule 331. The facility maintains compliance with SC VI. 1. and 2. through the TMS.

SC VI. 3. COMPLIANCE. Shall maintain calculations on file that demonstrate compliance with particulate emission limit. The facility provided calculations on May 2, 2013 as part of the initial ROP correspondence.

FG-RULE 290

The facility provided Rule 290 tracking sheets that demonstrate compliance with Rule 290 VOC emission limits. The facility tracks VOC emissions for adhesives, production inks, methanol, and isopropyl alcohol used on a monthly basis. VOC emissions for subject emission limits are less than the applicable Rule 290 monthly threshold.

FG-FACILITY

S I. 1. COMPLIANCE. The 12-month rolling CO emissions shall not exceed 271.4 tons per year. The maximum 12-month rolling CO emission from January 2018 through August 2020 occurred at the end of February 2018 at 142.6 tons.

SC I. 2. COMPLIANCE. The 12-month rolling NOx emissions shall not exceed 93.8 tons per year. The maximum 12-month rolling NOx emission from January 2018 through August 2020 occurred at the end of January 2018 at 17.5 tons.

Permit to Install Exempt Equipment

Engine Manufacturing Equipment

Engine manufacturing equipment appears to be exempt from PTI requirements per R336.1285(2)(l)(vi)(B) or (C). Emissions are either released to the general in-plant environment, or if released to outside ambient air are controlled by two stage filters within both the DCUs and MCUs. The AQD accepts the two stage filters as a demonstration of the permit exemption (mechanical precleaner and appropriately designed fabric filter).

Cold Cleaners

The facility operates six aqueous parts washers. The SDS provided indicates that the solution used in the parts washers does not contain VOCs. The parts washers appear to be exempt from PTI requirements under R336.1281(2)(k).

Fire Pumps and Emergency Engine

The facility operates two fire pumps and one emergency generator. The largest unit operates at 276 break horsepower. Based on calculations, 276 BHP power output rating is equivalent to 0.70 million British thermal units (MMBTU) rated input. At a 25% efficiency conversion, the maximum converted rating is approximately 2.8 MMBTU/hr. Based on the calculated rating, the fire pumps and emergency generator are exempt from PTI requirements under the following Rule.

R336.1285(2)(g): "Permit to install does not apply to...Internal combustion engines that have less than 10,000,000 Btu/hour maximum heat input."

Washers

The facility washers appear to be exempt from PTI requirement under R336.1281(2)(e). During the previous inspection, the facility provided the SDS for the material used. While the SDS provided indicates that solution used in the washer contains VOCs, the facility provided documentation that vapor pressure of the VOC constituent (ethanolamine) is less than 0.1 mmHg (see facility file).

APPLICABLE FUGITIVE DUST CONTROL PLAN CONDITIONS:

The facility currently operates under a fugitive dust plan as described above in EU-YARD. The fugitive dust plan outlines monthly sweeping activities and dust suppressant application, as necessary. Currently, all roadways and parking lots are swept monthly. The unpaved trailer area is swept as needed. During the inspection fugitive dust was not observed. At the time of the inspection the facility was determined to be in compliance with conditions of EU-YARD and the fugitive dust control plan.

MAERS REPORT REVIEW:

The 2019 MAERS report was submitted on time. The MAERS audit conducted in March 2020 was passed.

FINAL COMPLIANCE DETERMINATION:

At this time, this facility appears to be in compliance with MI-ROP-B3350-2014b and federal and state regulations. FCA plans to submit a PTI application for clarify the stack parameters for FG-WETMACHINE.

NAME _____ DATE 11/23/20 SUPERVISOR JK