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

B160847143

FACILITY: General Motors LLC Flint Metal Center		SRN / ID: B1608
LOCATION: G-2238 Bristol Rd, FLINT		DISTRICT: Lansing
CITY: FLINT		COUNTY: GENESEE
CONTACT: Karen Carlson , Senior Environmental Engineer		ACTIVITY DATE: 12/04/2018
STAFF: Daniel McGeen	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Partial Compliance Evaluation (PCE) activities, conducted as part of a Full Compliance Evaluation (FCE): 1.) scheduled inspection; and 2.) review of records and operational logs.		
RESOLVED COMPLAINTS:		

On 12/4/2018, the Michigan Department of Environmental Quality (DEQ), Air Quality Division (AQD) conducted a scheduled inspection of General Motors (GM) LLC Flint Metal Center, and subsequently reviewed facility recordkeeping. These are Partial Compliance Evaluation (PCE) activities, done as part of a Full Compliance Evaluation (FCE).

Environmental contacts:

- Alexandra Thibeault, CHMM, Senior Environmental Engineer; 810-577-9003; alexandra.thibeault@gm.com
- Karen Carlson, Senior Environmental Engineer; 517-204-9011; karen.i.carlson@gm.com
- Madeline Mahnick, Environmental Engineer; 810-236-4638; madeline.mahnick@gm.com
- Tina Burry, EHS Manager, Flint Complex; 248-234-2901; tina.burry@gm.com

Facility description:

This facility is a metal stamping plant, which produces hoods, fenders, and body sides out of either steel or aluminum. Some assembly of parts is also done here. Neither priming nor painting of vehicle parts are done at this facility.

Emission units in ROP:

Emission unit* ID	Description	Flexible group ID	Installation date/modification date	Status
EUPAINTSHOP	Maintenance paint booth with dry fabric filters	FGRULE287(c)	01/01/1997	Compliance
EUSEALERS	Sealer application operations and associated solvent wipe cleaning that are exempt from Rule 201 under Rule 290.	FGRULE290; FG-MACT LIGHT DUTY	01/01/2006	Compliance
EUINKMARKING	Ink marking operation.	FGRULE287(c)	09/01/2009	Compliance
EUCOLDCLEANERS	Cold cleaners exempt from Rule 201 per Rules 281(h) or 285(r)(iv).	FGCOLDCLEANERS	01/01/2008	Compliance
EU B-1 BOILER	A 2.2 MMBtu/hr natural gas-fired boiler that serves the Administration Building.	FGBOILER-MACT	05/01/2005	Compliance
EU B-2 BOILER	A 2.2 MMBtu/hr natural gas-fired boiler that serves the Administrative Building.	FGBOILER-MACT	05/01/2005	Compliance
EU-GENERATOR#1	An 80.4 HP natural gas-fired emergency spark ignition (SI) generator located on the roof of the Administration Building.	FGEXT-EMERGENCY	01/01/2005	Compliance
EU-GENERATOR#2	A 225 HP natural gas-fired emergency spark ignition (SI) generator located on a platform, indoors,	FGNEW-EMERGENCY	04/01/2008	Compliance
EU-GENERATOR#3	A 225 HP natural gas-fired emergency spark ignition (SI) generator located in the basement at L-19.	FGNEW-EMERGENCY	08/01/2008	Compliance
EU-FIREPUMP	A 420 HP diesel fuel-fired fire pump compression ignition (CI) engine located east of the main plant.	FGEXT-EMERGENCY	05/01/2000	Compliance

*An emission unit is any part of a stationary source that emits or has the potential to emit an air contaminant.

Regulatory overview:

This facility has an extremely small amount of yearly emissions. However, it is contiguous and adjacent

to the GM Flint Truck & Bus Assembly Plant (SRN B1606), which is a major source of Hazardous Air Pollutants (HAPs). The Flint Metal Center is therefore also considered to be a major source of HAPs, based on the definition from Section 112 of the Clean Air Act. Because the Metal Center does not support the primary activity of the assembly plant, however, it is treated as a separate stationary source, and so has its own Renewable Operating Permit (ROP).

The facility has a current ROP, No. MI-ROP-B1608-2016. The ROP consists of exempt emission units, which are exempt under Rules 287(c), 290, 281(h) and 285(r)(iv). There are also numerous metal stamping machines, exempt under Rule 285(l)(i), and two boilers subject to 40 CFR Part 63, Subpart DDDDD, *National Emissions Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters*.

EUPAINTSHOP, EUSEALERS, and EUINKMARKING are not considered to be subject to 40 CFR Part 63, Subpart MMMM, the *National Emissions Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products*.

However, EUSEALERS is subject to 40 CFR Part 63, Subpart IIII, *National Emissions Standards for Hazardous Air Pollutants for Surface Coating of Automobiles and Light Duty Trucks*.

Major sources are required to under go a FCE once every 2 years, under the US Environmental Protection Agency's Compliance Monitoring Strategy.

Exempt emission unit which was installed after the latest ROP renewal:

- New aluminum scrap handling line with cyclone; Rule 291:

Exempt emission units listed in the ROP application which are not required to be in the ROP:

Exempt emission unit ID	Description of exempt emission unit	Rule 212(4) exemption from ROP	Rule 201 exemption
EU-SPACEHEATERS	Natural gas-fired space heaters/air make-up units	Rule 212(4)(b)	Rule 282(b)(i)
EU-1K-GASTANK	One 1000-gal above ground gasoline storage tank	Rule 212(4)(c)	Rule 284(g)(i)
EU-D1-GRINDING	Non-production grinding at D-1	Rule 212(4)(d)	Rule 285(l)(vi)(A)

The above processes are not subject to any process-specific emission limits or standards in any applicable requirement.

Exempt emission units neither required to be in the ROP nor in the ROP application:

Exempt emission unit ID	Description of exempt emission unit	Rule 212(4) exemption from ROP	Rule 201 exemption
EU-MACHINING	Various non-production machining	Rule 212(3)(f)	Rule 285(l)(vi)
EU-POWERWASH	Industrial cleaning pad, located by barrel house	Rule 212(2)(e)	Not subject to Rule 201
EU-WESTSTEAMBOOTH	West die room steam booth	Rule 212(3)(f)	Rule 285
EU-EASTSTEAMBOOTH	East die room steam booth	Rule 212(3)(f)	Rule 285
2 additional steam booths	2 steam booths which AQD was previously not aware of	Rule 212(3)(f)	Rule 285
EU-STORAGE1	Bulk storage container	Rule 212(4)(c)	Rule 284
EU-STORAGE2	Bulk storage container	Rule 212(4)(c)	Rule 284
Welders	Welding units/assembly cells	Rule 212(3)(f)	Rule 285(i)
Presses	Stamping presses	Rule 212(3)(f)	Rule 285(l)(i)

The above processes are not subject to any process-specific emission limits or standards in any applicable requirement.

Location:

The facility is bordered on the north by GM Flint Assembly Operations (SRN B1606), on the east by GM Flint Engine Operations (SRN B1607), and on the west by US-23. This has been a heavy industrial area for decades. To the south are commercial and/or industrial properties. It is well over 1,000 feet to any residential areas. There are no complaints associated with this facility in AQD files as far back as 1991, and possibly even earlier.

Fee category:

Because the Flint Metal Center is classified as a major source of HAPs, it is considered a Category II source. It pays an annual Category II facility fee, and pays per ton of pollutants discharged. It annually reports estimated air emissions via the Michigan Air Emissions Reporting System (MAERS).

Recent history:

This facility was most recently inspected on 12/14/2016. On 3/17/2016, the ROP was renewed. On 11/21/2016, GM representatives proposed to install an aluminum scrap recycling process at Flint Metal Center. A conveyor would take scrap metal from the process area to an outside shed, where trucks would haul it offsite, for recycling.

Required safety apparel:

Required for this site are: closed toe shoes with sides of leather construction (not fabric), safety glasses with side shields, hearing protection, safety vests, and Kevlar sleeves. GM can provide safety glasses and hearing protection. GM will provide safety vests of an appropriate color, as the AQD safety vests are of a color which, to GM, signifies crane operators. GM will also provide Kevlar sleeves for plant visitors to wear. Finger jewelry must be removed prior to entering the plant.

Arrival:

On today's inspection, I was accompanied by Ms. Hally Dixon and Ms. Sarah Marshall, Student Interns with the DEQs Office of Environmental Assistance, for educational purposes. AQD guidance regarding bringing interns on inspections is to make arrangements with the facility in advance, to ensure that adequate facility staff are available to safely escort DEQ staff through the site. Therefore, the time and date for this inspection had been pre-arranged with the GM environmental contacts.

At 9:55 AM on 12/4/2018, no odors were detected from Flint Metal Center (FMC) as we drove east on Bristol Road and north on Van Slyke Road. Weather conditions were sunny, clear, and 34 degrees F, with winds out of the north northwest at 5-10 miles per hour.

At 10:05 AM, we arrived in the plant parking lot. We parked immediately south of the Flint Metal Center. No odors or visible emissions could be detected. No steam (uncombined water vapor) could be seen from exhaust stacks or the plant roofline.

We viewed a required GM safety video, and met with Ms. Karen Carlson, Senior Environmental Engineer, and Ms. Madeline Mahnick, Environmental Engineer. They explained that they were filling in for Ms. Alexandra Thibeault, Senior Environmental Engineer, the normal environmental contact for this facility, as she was out of the office for the time being. They introduced us to Ms. Tina Burry, Environmental, Health & Safety Manager for the GM Flint Complex, and Ms. Maya Ann Collins, Environmental Engineer.

During the pre-inspection meeting, we first had a safety briefing. We then discussed the purpose of the inspection, to determine compliance with the ROP, and with state and federal air pollution regulations.

We were advised that in the not too distant future, the GM Flint Metal Center, along with GM Flint Engine Operations (SRN B1607) will be included in the ROP renewal for GM Flint Assembly Operations (SRN B1606).

We agreed to discuss, at the conclusion of the inspection, vintage PTIs and a Permit to Operate (PTO) which still appeared active, according to AQD's Permit Cards database, for processes which might no longer be at the facility.

We were informed that since the AQD 12/14/2016 inspection, 3 metal stamping presses in the K and L bays had been decommissioned, and some of the sealing operations within FMC were being shifted to the new body shop of GM Flint Assembly Operations.

Inspection:

During the inspection, I did not observe any visible emissions on the interior of the plant.

1.) EUPAINTSHOP; FGRULE287(c):

Their paint shop has a large booth equipped with mat or panel filters. It is not a production booth, and is operated as needed, like when equipment has been repaired, and needs to be touched up. It was not in use, at this moment. There are exhaust fans, and a pressure drop gauge. The dry paint filters were in good shape, and appeared almost new. There is a sliding curtain which closes off the entrance doorway to the booth, when it is in use.

I noticed a form available in the booth for employees to record coating usage. The recordkeeping for the paint shop is discussed later in this activity report.

2.) EUSEALERS; FGRULE290 and FG-MACT LIGHT DUTY:

It is my understanding that aluminum is sometimes used instead of steel for the hoods of some vehicles, to reduce weight and improve fuel economy. It is also my understanding that aluminum cannot be welded the way steel can, for their purposes, so they use adhesive to bond aluminum parts. Gluing is done in cells similar to weld cells.

We observed robotic application of sealers and/or adhesives. We were advised that sealer is applied to one side of a steel or an aluminum part, which is then combined with another part. In some instances, these parts are later welded together, we were advised. For another process, it was explained that after the sealer is applied, the edges of the metal parts are hemmed, or rolled over. I could detect neither visible emissions nor odors from the various sealing processes.

EUSEALERS includes only adhesives and sealers that are not part of glass bonding systems, as stated in the ROP. I was told previously that here the sealers are 98-99% solid materials, and have a very low VOC content.

The ROP's FG-MACT LIGHT DUTY flexible group requires that organic HAPs in the coatings for EUSEALERS be no more than 0.01 lbs per lb of coating, on a calendar month basis. This is required pursuant to 40 CFR Part 63, Subpart IIII, *National Emission Standards for Hazardous Air Pollutants for Surface Coating of Automobiles and Light Duty Trucks*. I was informed today that the sealers and adhesives here have no carcinogens, and no HAPs, so HAPs content is 0.00 lbs per lb of coating. Sealer recordkeeping under Rule 290 is discussed under the recordkeeping section of this report.

3.) EUINKMARKING; FGRULE287(c):

It is my understanding that ink marking of parts is done for quality checking purposes on a daily basis, with hand held markers, also known as "daubers." We were advised that they keep records of the amount of materials purchased, to track usage. I detected no odors in the areas where ink marking is done.

Recordkeeping for EUINKMARKING is further discussed in the review of recordkeeping section of this activity report.

4.) EUCOLDCLEANERS; FGCOLDCLEANERS:

At this time there is only one solvent-based cleaner in the plant, I was told. The other solvent-based parts cleaner here had been converted to an aqueous solution, since the AQD's 12/14/2016 inspection, I have been advised.

Organic solvent-based cleaners where the solvent is not heated to the solvent's boiling point are

classified as *cold cleaners* under the Michigan Air Pollution Control Rules. During the inspection, we examined the only remaining cold cleaner, which was small in size. The lid was closed, with a sticker on it stating to keep the lid closed. Instructions were posted in two locations for operating it. From the previous inspection here, it is my understanding that it is unheated, and has an exhaust fan, for ducting emissions through the paint booth particulate filter and exhaust stack.

This cold cleaner is classified as a new unit under the Michigan Air Pollution Control Part 7 Rules, having been placed into operation on or after 7/1/1979. The actual installation date is listed in the ROP as 1/1/2008. The other cleaners in the plant all utilize water-based cleaning solutions. Because they do not use organic solvent, they do not fall under the Michigan definition of cold cleaners.

Special Condition (SC) FGCOLDCLEANERS No. II. 1 requires that cleaning solvents shall not be used containing more than 5% of the following halogenated compounds: methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, chloroform, or any combination thereof. It is my understanding that the cold cleaner we saw does not utilize halogenated compounds as the cleaning solvent.

The air/vapor interface on the cold cleaner appeared to be less than ten square feet, which is one of the two design requirement options under SC FGCOLDCLEANERS No. IV. 1. The cold cleaner was equipped with a cover, which was closed when parts were not being handled, as required by SC FGCOLDCLEANERS No. IV. 3. SC COLDCLEANERS No. VI. 3 requires posting of written operating procedures in an accessible, conspicuous location. As previously noted, the instructions for operation were posted nearby.

5. and 6.) EU B-1 BOILER and EU B-2 BOILER; FGBOILER-MACT:

EU B-1 BOILER is a natural gas-fired boiler; Weil-McLain Model 788 Series 1, Model # WCRZ-G-15HTD, rated at 2.2 MMBtu/hr. EU B-2 BOILER is also a natural-gas-fired boiler; Weil-McLain model 788 Series 1 Model # WCRZ-G-15HTD, rated at 2.2 MMBtu/hr. The boilers are subject to 40 CFR Part 63, Subpart DDDDD, *National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters*. It is my understanding that they serve the plants' Administration building, with one operating, while the other serves as backup. No visible emissions were observed from the plant today, upon arrival.

On 5/30/2013, AQD received an Initial Notification for Applicability for the two boilers, from the company. An earlier Initial Notification form had been received on 3/15/2012. The more recent document was an update to address the Finalized Major Source Boiler MACT Rule, published on 1/31/2013.

SC FGBOILER-MACT No. III. 1 and Subpart DDDDD require an initial tune up of the boilers no later than 1/31/2016, and a tune-up every five years thereafter. On 3/15/2016, AQD received a Notification of Compliance Status (NOCS) Report for the boilers. This report indicated that the required initial tune-up had been done, and that continuous compliance would be determined by conducting tune-ups according to procedures in Section 63.9(h)(2)(i)(C). SC FGBOILER-MACT No. III. 2 requires a one-time energy assessment. The NOCS report stated that the energy assessment was performed. The NOCS Report further indicated that Boilers B-1 and B-2 have neither Boiler MACT emission limitations nor operating parameter limitations.

GM reminded us today that the federally-required initial tune up was done in 2015, as well as the one-time energy assessment. The boilers' status has not changed since then, I was told.

7.) EU-GENERATOR#1; FGEXT-EMERGENCY; 40 CFR Part 63, Subpart ZZZZ:

This existing engine is one of two in the Flexible Group FGEXT-EMERGENCY. It was not running, at the time of the inspection. It is subject to the requirements of 40 CFR Part 63, Subpart ZZZZ, aka the RICE MACT.

The flexible group FGEXT-EMERGENCY contains SC FG-EXTEMERGENCY No. III. 5, limiting each engine in the flexible group to no more than 100 hours of operation per calendar year for maintenance checks

and readiness testing and emergency demand response. SC No. VI. 3 requires records to demonstrate continuous compliance with operating limitations.

We were provided with a copy of their log sheet for hours of operation, please see attached. Hours of operation in 2018 are summarized as follows:

- January 2018 non-resettable hour meter start: 389.14 hours
- As of December 4, 2018, non-resettable hour meter reading: 432.6 hours.
- 432.6 - 389.14 hours = 43.46 hours operated in 2018, year to date (YTD). This complies with SC EXTEMERGENCY III. 5 and VI. 3.
- Except for one power outage of 2.5 hours, all run hours YTD were for maintenance and testing.

SC No. IV. 1 requires a non-resettable hour meter on each engine in the flexible group. SC No. VI. 5 requires records of hours of operation through the non-resettable hours meter. The monthly hour meter readings were provided for the start and end of each month, for EU-GENERATOR#1, as discussed above.

The ROP requires the unit to be installed, maintained, and operated in a satisfactory manner. A copy, attached, was provided of a 6/18/2018 Generator Inspection Checklist for EU-GENERATOR#1, which can be identified by its location, the rooftop. The generator appears to be a CAT Olympian, Model Number MG60FSm, Serial Number S0LY00000HNFC9592, while the internal combustion engine is identified as being a Ford, Model Number WSG1068, Serial Number 042520879. The checklist showed the unit had been checked over completely, and noted engine operating parameters. The form noted that the oil was changed, and no issues were identified.

8. and 9.) EU-GENERATOR#2 and EU-GENERATOR#3; FGNEW-EMERGENCY; 40 CFR Part 63, Subpart ZZZZ:

EU-GENERATOR#2 and EU-GENERATOR#3 are classified as new generators, having been installed in April and August of 2008, respectively. They are both Onan model number GGLB-6255884, and have consecutive serial numbers, A080151639 and A080151638. The engine for #2 is a GM Model Number 8.1L, Serial Number 8P1L6874. The engine for #3 is a GM Model Number GM8.1L, Serial Number SP1L16982. They are subject to the requirements of the RICE MACT, but are not subject to the requirements of the New Source Performance Standards (NSPS), I was told. This was a reference to 40 CFR Part 60, Subpart JJJJ, *Standards of Performance for Stationary Spark Ignition Internal Combustion Engines*. I was informed they keep records of hours of operation to demonstrate they are not subject. I was also informed that they are doing maintenance activities identified in the NSPS, even though they are not actually required to do this.

We observed EU-GENERATOR#2, within the plant. It is located on platform F12, rather than on the roof of the Administration Building, as previous inspection reports had incorrectly stated. It is reached by a short flight of stairs. The unit appeared to be in good physical condition. It was not running, at the time of the inspection.

Their requirements are spelled out in the flexible group FGNEW-EMERGENCY in the ROP. SC FGNEW-EMERGENCY No. III. 1 prohibits each engine in the group from running more than 100 hours per calendar year for maintenance checks and readiness testing and emergency demand response.

We were advised that EU-GENERATOR#2 operates less than 100 hours per year. We were provided with a copy of their log sheet for hours of operation for EU-GENERATOR#2, please see attached. Its hours of operation in 2018 are summarized as follows:

- January 2018 non-resettable hour meter start: 368.5 hours
- As of December 4, 2018, hour meter reading: 439.7 hours.
- 439.7 - 368.5 hours = 71.2 hours operated in 2018, year to date (YTD). This complies with SC FGNEW-EMERGENCY No. III. 1.
- Run hours YTD were for a variety of reasons: maintenance and testing, a power outage, and other power outages with purpose of doing substation maintenance and equipment installation.

SC FGNEW-EMERGENCY No. IV. 1 requires a non-resettable hour meter for each engine. SC No. VI. 1 requires recordkeeping of hours of operation recorded through this non-resettable hour meter. The monthly hour meter readings for EU-GENERATOR#2 were provided for the start and end of each month, as discussed above.

The ROP requires EU-GENERATOR#2 to be installed, maintained, and operated in a satisfactory manner.

I received a copy of the Generator Inspection Checklist for EU-GENERATOR#2. This showed that checklist maintenance items were done, and engine operating parameters were noted. Comments were provided that the oil and filter were changed, and no issues were found.

EU-GENERATOR#3 is located in the basement of the stamping plant. It was not running, at the time of the inspection.

We were provided with a copy of their log sheet for hours of operation, please see attached. Hours of operation in 2018 are summarized as follows:

- January 2018 non-resettable hour meter start: 93.1 hours
- As of December 4, 2018, hour meter reading: 105.7 hours.
- $105.7 - 93.1$ hours = 12.6 hours operated in 2018, year to date (YTD). This complies with SC FGNEW-EMERGENCY No. III. 1.
- Run hours YTD were for maintenance and testing, with one power outage of 2.5 hours. In August, the generator did not run, and comments indicate that follow up was done.

The ROP requires EU-GENERATOR#3 to be installed, maintained, and operated in a satisfactory manner. AQD received a copy, attached, of the Generator Inspection Checklist for EU-GENERATOR#3. This showed which maintenance items were done, and noted that no issues were found.

10.) EU-FIREPUMP; FGEXT-EMERGENCY; 40 CFR Part 63, Subpart ZZZZ:

This existing engine is the remaining of the two units in the Flexible Group FGEXT-EMERGENCY. It is a 420 HP diesel fuel-fired pump compression ignition (CI) engine. It was not running, at the time of the inspection.

SC FGEXT-EMERGENCY No. III. 5, limits each engine in the flexible group to no more than 100 hours of operation per calendar year for maintenance checks and readiness testing and emergency demand response. SC FGEXT-EMERGENCY No. VI. 3 requires records to demonstrate continuous compliance with operating limitations.

We were provided with a copy of their log sheet for hours of operation, please see attached. Hours of operation in 2018 are summarized as follows:

- January 2018 non-resettable hour meter start: 1,083.4 hours
- As of December 4, 2018, non-resettable hour meter reading: 1,110.5 hours.
- $1,110.5 - 1,083.4$ hours = 27.1 hours operated in 2018, year to date (YTD). This complies with ROP Special Condition (SC) FGEXT-EMERGENCY No. III. 5 and VI. 3.
- All run hours YTD were for maintenance and testing?, except for one power outage of 0.8 hours.
- SC FGEXT-EMERGENCY No. IV. 1 requires a non-resettable hour meter on each engine in the flexible group. It was currently at 1,110.5 hours, when we observed it. SC No. VI. 5 requires records of hours of operation through the non-resettable hours meter. The monthly hour meter readings for EU-FIREPUMP were provided for the start and end of each month, as discussed above. This demonstrates compliance with SC FGEXT-EMERGENCY No. IV. 1 and VI. 5.

The ROP requires the unit to be installed, maintained, and operated in a satisfactory manner. I received a copy of the Annual Diesel Engine Driven Fire Pump Maintenance form, please see attached. This contains a checklist of items, and all items are marked as having been done on 10/1/2018, by a contractor. Examining the unit itself, I saw that the oil filter on the unit had a written notation on it, that it was replaced on 10/1/2018, the service date noted on the form.

11.) New aluminum scrap handling system and cyclone, Rule 291:

GM FMC had previously sent an exemption demonstration to AQD on 5/12/2017, for the aluminum scrap handling system and cyclone. The exemption demonstration letter indicated that potential emissions of particulate matter (PM), PM-10, and PM2.5 would be under the Rule 291 maximum allowed thresholds of 10 TPY PM, 5 TPY PM-10, and 3 TPY PM2.5. AQD had reviewed the demonstration, but had wanted to see the equipment in operation, to consider if we had any concerns about the use of Rule 291.

The aluminum scrap handling system is operational, but would not be operated today until the second or third shift, Ms. Collins explained to us. We were taken into the basement of FMC, to see the system. Presses operate above, and scrap metal drops onto conveyors below, it was explained. Aluminum stamping scrap is separated from steel stamping scrap by means of a diverter, we were told, so the scrap metal streams consist of pure, uncontaminated metals. Aluminum could further be screened out into two types, if GM wished, I was advised. Out of the system's 3 large exhaust fans, 2 were said to be identical. We were then shown the ductwork which pneumatically conveys small pieces of aluminum scrap to the loadout building.

The loadout building, or scrap house, is a short distance north of the FMC main building. It has two truck bays, which are kept shut when the system is operating, I was told. Once inside the building, we ascended a number of flights of stairs. After the ductwork enters the loadout building, it connects to a large cyclone. The cyclone is primarily used for material separation, rather than air pollution control purposes, as I understand it. When the air stream enters the cyclone, pieces of aluminum drop out and are routed by a diverter to either of the two truck bays. Looking down through the grate-like metal floor, we could see small pieces of aluminum in a truck trailer, below us.

We were informed that GM could potentially expand the aluminum scrap loading building from 2 truck bays to 4 truck bays in size. They indicated that they were aware an updated Rule 291 exemption demonstration would be necessary, in order to do this.

I indicated today that I would like to return to the site in the future, when the scrap handling system and cyclone are running, to check for the presence of any visible emissions. This would be helpful to AQD staff as we consider their use of the Rule 291 exemption for this process.

NOTE: please see the section near the end of this activity report, on the unannounced 3/14/2019 site visit by AQD, which was done so the the aluminum scrap handling system and cyclone could be inspected, while they were operating.

12.) Metal machining; Rule 285(l)(vi):

I noted various metal working processes in scattered locations throughout the plant. These appeared to operate on a non-production basis, and they also exhausted indoors. These processes therefore appeared to meet the exemption criteria of both Rule 285(l)(vi)(A) and (B).

13. through 16.) EU-WESTSTEAMBOOTH, EU-EASTSTEAMBOOTH, and 2 additional steam booths; Rule 285:

We were informed that there are four steam booths in the plant, rather than just the two that were in my 12/14/2016 inspection report. It was explained that steam is used clean oil off of dies, and an alkaline material with a small amount of organics is used. We looked at the west steam booth, which was not running, at the moment.

17.) Stamping presses; Rule 285(l)(i):

Stamping is done in the east side of the plant, and parts are then brought to the center cell area for assembly. It is my understanding that they produce parts here for several GM vehicles, but the parts go to other GM plants, rather than the adjacent Flint Assembly. The manufacturing process starts here when rolls of coiled steel or aluminum enter the plant, and blanks are cut from the rolls. The blanks undergo cold stamping.

There are five main types of presses at the plant, for stamping metal:

1. C presses, accompanied by some assembly.
2. Prog presses, which are slightly larger, and typically have 6 steps which are performed.
3. B presses, are the next largest conventional presses, and typically involve 4 steps.
4. A presses; which are the next largest, and are completely enclosed.
5. AA presses are the largest, and can create an entire vehicle body side.

We observed the K-18 Schuler press, which was running. It is one of the AA presses, the largest class of press at Flint Metal Center. We could view its operations, through clear windows on the side of the process. There were no visible emissions from the process, which was enclosed, overall. It is my understanding that this press goes through multiple different steps, each time it is used to form a part.

We observed numerous presses running. I could not see visible emissions from any of them. As mentioned earlier in this report, we were informed that 3 metal stamping presses in the K and L bays had been decommissioned.

Departure:

Upon leaving the plant at 1:43 PM, no odors or visible emissions were detected from the Flint Metal Center. Weather conditions were sunny and clear.

Review of facility recordkeeping:

During the inspection, I received copies of records and operating data for the 3 most recent months, please see attached. On a subsequent date, these records were reviewed, to check compliance with the ROP and with the exemption rules.

EUSEALERS; FGRULE290 data:

- August 2018: 79.11 lbs non-carcinogenic VOCs emitted, well below the applicable 1,000 1b limit for uncontrolled VOCs under Rule 290.
- September 2018: 150.14 lbs non-carcinogenic VOCs emitted, well below the applicable 1 1000 1b limit for uncontrolled VOCs under Rule 290.
- October 2018: 91.51 lbs non-carcinogenic VOCs emitted, well below the applicable 1,000 1b limit for uncontrolled VOCs under Rule 290.

FG-MACT LIGHT DUTY report data:

The ROP's FG-MACT LIGHT DUTY flexible group requires that organic HAPs in the coatings for EUSEALERS be no more than 0.01 lbs per lb of coating, on a calendar month basis. I received the attached MACT - HAP Report - General Sealers document, for the period January through October of 2018. The HAP content of the six sealers used during this time period was identified as 0.00 lbs/gal, and HAP emissions generated for EUSEALERS were identified as 0.00 lbs generated, for each month in this time period.

EUPAINT SHOP; FGR287(c) data:

- August 2018: 0.69 gallons, minus water, per month, far below the 200 gallons minus water per month allowed by Rule 287(c), revised in 2016 as Rule 287(2)(c).
- September 2018: 2.81 gallons, minus water, per month, far below the 200 gallons minus water per month limit allowed by Rule 287(c), revised in 2016 as Rule 287(2)(c).
- October 2018: 0.57 gallons, minus water, far below the 200 gallons minus water per month limit allowed by Rule 287(c), revised in 2016 as Rule 287(2)(c).

EUINKMARKING; FGR287(c) data:

- August 2018: 0.43 gallons, far below the 200 gallons minus water per month limit allowed by Rule 287 (c), revised in 2016 as Rule 287(2)(c).
- September 2018: 0.76 gallons, far below the 200 gallons minus water per month limit allowed by Rule 287, revised in 2016 as Rule 287(2)(c)
- October 2018: 0 gallons, far below the 200 gallons minus water per month limit allowed by Rule 287 (c), revised in 2016 as Rule 287(2)(c).

MAERS reporting:

A MAERS report is submitted yearly for this facility. A 5/31/2019 audit of the facility's MAERS report for the 2018 operating year found the following:

For EUPAINTSHOP, the 2018 throughput of coatings was 0.15 tons of coatings, or 29.63 gallons. A spreadsheet attached to the MAERS submittal showed that monthly coating use rates were far below the Rule 287(c) allowed throughput of 200 gallons of coatings per month. Please see hard copy or electronic MAERS records. VOC emissions from EUPAINTSHOP were reported as 32.41 lbs for 2018.

For EUSEALERS, the yearly emissions of VOCs were 1,508.21 lbs in 2018. A spreadsheet attached to the MAERS submittal showed that the monthly VOC emission rates were well below the Rule 290 allowed 1,000 lbs per month of uncontrolled emissions. Please see hard copy or electronic MAERS records.

For EUINKMARKING, the 2018 throughput of inks was 3.85 gallons per year. A spreadsheet attached to the MAERS submittal showed that monthly coating use rates were far below the Rule 287(c) allowed throughput of 200 gallons of coatings per month. Please see hard copy or electronic MAERS records. VOC emissions from the inks were reported as 25.40 lbs for 2018.

For EUCOLDCLEANERS, the 2018 VOC emissions were reported to be 20.70 lbs. There is no process-specific emission limit in the ROP for the cold cleaners.

Discussion of still active yet obsolete PTIs:

At the conclusion of the inspection, we discussed permits to install and permits to operate which appeared active in Permit Cards, but might be for obsolete equipment no longer at the plant. We discussed the following permits:

1. PTO No. 481-86, for a battery charger. This process was removed, GM staff confirmed
2. PTI No. 512-91, for a fuel storage tank. Ms. Burry indicated that this and another underground fuel tank were decommissioned.
3. PTI No. 614-91, for the 1993 GMT program. This process had been removed from the plant. Review of the Permit Section's library showed that this permit had actually been voided on 11/25/2015, but the voiding had never been entered into Permit Cards.

Subsequent to the inspection, the AQD Lansing District office e-mailed the Permit Section to request that they void PTO No. 481-86 and PTI No. 512-91, and that they update Permit Cards to reflect the 11/25/2015 voiding of PTI No. 614-91.

Return to site on 3/14/2019 to inspect aluminum scrap handling system with cyclone; Rule 291:

On 3/14/2019, AQD made an unannounced site visit to Flint Metal Center, for the purpose of inspecting the aluminum scrap handling system with its cyclone, while they were running. I arrived at 9:52 AM at Flint Metal Center. I detected no visible emissions from the overall plant. The only odor detectable was exhaust from a semi truck. Weather conditions were overcast and 50 degrees F, with winds out of the south at 15-20 miles per hour.

I met with Ms. Tina Burry, EHS Manager, and explained the reason for this visit. She contacted Mr. Mike Noe, Process Engineer, who accompanied us on the inspection. They confirmed that one of the progressive presses was operating, and therefore there would be aluminum scrap going through the

scrap handling system today.

We walked outside of the plant. No visible emissions could be seen from the roofline of the scrap metal handling building, where the cyclone is. No fugitive emissions could be seen from the ductwork leading to the building, which is also known as the scrap house. Pieces of aluminum were audible as they traveled down the length of the ductwork. Weather conditions were 52 degrees F, and partly sunny. Winds were out of the south at 10-15 miles per hour.

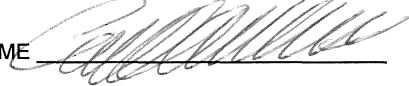
Inside the building, small pieces of aluminum scrap were being loaded into a truck trailer in Bay 2. I could not see any fugitive particulate emissions. On horizontal surfaces inside the scrap house, such as railings, I observed traces of a very fine metallic powder. There had been no sign of this aluminum dust outside the scrap house, however.

We climbed up flights of stairs, up towards the top of the cyclone. There were no fugitive emissions from the cyclone. I was shown where a "Y" diverter is located, that can route pieces of scrap into truck bay 1 or truck bay 2. The cyclone does not have a pressure drop gauge, but I was advised that they monitor electric current to the fans to ensure that each duct in the system has air flow. The airflow inside the ductwork moves at 70 miles per hour, I was told. It is my understanding that a study was conducted which determined that the aluminum dust here was not fine enough to be considered hazardous for risk of an explosion.

The scrap metal handling system is considered by GM to be exempt under Rule 291, per their exemption demonstration which was submitted on 5/12/2017. I left the site at this time.

Conclusion:

No instances of noncompliance were identified on either the 12/4/2018 inspection, or the 3/14/2019 return to the site to inspect the aluminum scrap handling system with cyclone.

NAME  DATE 6/14/2019 SUPERVISOR 