

SRN: M4803

Manila

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

M480345393

FACILITY: GSA - Federal Building		SRN / ID: M4803
LOCATION: 985 MICHIGAN AVE, DETROIT		DISTRICT: Detroit
CITY: DETROIT		COUNTY: WAYNE
CONTACT: James Chastine , Project Manager (Acting)		ACTIVITY DATE: 02/22/2018
STAFF: C. Nazaret Sandoval	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Scheduled Inspection for year FY 2017		
RESOLVED COMPLAINTS:		

SRN: M4803 - GSA-IRS Building**Location:** 985 Michigan Avenue, Detroit MI 48226**Date of Inspection:** February 22, 2018**Date of Report:** August 1, 2018**Reason for Inspection:** Targeted Inspection**Inspector:** Nazaret Sandoval, AQD**Contact Person:** James Chastine, Urban Services Group, Program Manager**Phone Number:** (313) 965 8500**FACILITY BACKGROUND**

The GSA-IRS Building Center is a multi-story office building located in downtown Detroit. For several years Walsh Higgins & Company owned the building and the IRS was a tenant. In April 2015 the U.S. General Services Administration (GSA) took ownership of the building and Urban Services Group was hired by GSA to assume the management operations of the building as well as the air permit compliance responsibilities.

The facility has four (4) boilers and four (4) engine driven generators for emergency electric power. Out of the four boilers, one is inoperative. A notification received by AQD via email on June 24, 2014 indicated that due to costly repairs the company decided to shut down boiler No. 4. According to the notification, the boiler was last used in September 2012 and the disconnection work was completed in February 2013. The city inspector verified/certified the proper disconnection of the equipment in April 2013. The boiler is still at the site, but it can't be used because all service lines (i.e. steam, gas, and water lines) and power input have been disconnected.

The boilers are natural gas fired with burners designed to fire No.2 diesel fuel oil as backup fuel. The process in the boilers involves the generation of steam for heating the building. The emergency generators only use diesel. According to the records in AQD files and verified with the boiler plate, each boiler has a maximum firing rate of 29295 MBH (i.e. 29.3 million Btu / hour) and each generator is rated at 19.3 million Btu /hour, equivalent to 2,682 bhp. The boilers were built in mid-1993, the start-up date was December 1994 and operations started in April 1995. The emergency generators were installed in April 1995.

Records in AQD files showed a letter dated September 22, 2006 from David Mitchell (President-Great Lakes Power) indicating that in the year 2002 one of his boiler's technician performed maintenance and repairs to the burners in all boilers to restore them to the correct factory standards and settings, so that the actual firing rates of the boilers matched that given on the boiler rating plate.

The facility has two underground storage tanks (UST) - east and west- for diesel fuel-oil, each

tank with a volume of 20,000 gallons. Each generator has its own 300-gallon fuel oil tank.

REGULATORY REQUIREMENTS

According to the facility records, a permit to install application for the listed equipment, postmarked on May 15, 1998 and identified as C-11781-11788 was submitted to the former Wayne County Air Quality Division. Shortly after the application was received, the Air Quality Program for Wayne County was transferred to the Air Quality Division (AQD) of the Michigan Department of Environmental Quality (MDEQ). Wayne County voided the permit application and the equipment described in the original application was addressed by a Permit to Install (PTI) issued by the AQD.

Under the state regulations, Rule 201 of the Michigan Administrative Rules for Air Pollution Control requires a permit to install for boilers burning distillate oil alone or as a backup to natural gas, if the maximum design heat input capacity of the boiler is more than 20 million Btu per hour, or if the distillate oil contains more than 0.4% sulfur by weight. A PTI is also required when the maximum design heat input capacity of a natural gas only boiler is more than 50 million Btu per hour.

The boilers at the IRS building required a PTI because each boiler has a maximum design heat input capacity of 29.3 million Btu per hour and they use distillate oil as a backup fuel.

The facility is a Title V opt-out source (synthetic minor) operating under permit PTI 216-98, issued by AQD on 2/15/2000. The permit includes enforceable limits for fuel usage to stay below PSD and a limit for NO_x emissions below 100 tons. All other criteria pollutant emissions are below 10 tons, so there are no enforceable limits for them.

The facility is an area source of hazardous air pollutant (HAPs) because it is a stationary source that has a potential to emit less than 10 tons per year of a single HAP and less than 25 tons per year of any combination of HAPs.

The boilers are small boilers in a commercial building meeting the applicability criteria cited on 60.40c of 40 CFR Part 60 Subpart Dc – Standards of Performance for Small Industrial - commercial -Institutional Steam Generating Units (NSPS Dc):

- The boilers are steam generating units for which construction has commenced after June 9, 1989
- The maximum design heat input capacity is greater than or equal to 10 million Btu/hour and equal to or less than 100 million Btu/hour.

The State of Michigan is the delegated authority to implement and enforce the standards cited under NSPS Subpart Dc. The specific requirements that apply to the boilers at IRS building are evaluated later in this report.

Existing emergency engines of any brake horse power constructed before June 12, 2006 located at residential, institutional, or commercial area sources of HAPs and not used for local reliability are exempt from the provisions of 40 CFR Part 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (NSPS – CI ICE). However, this type of engines (such as the ones in the IRS building) must meet the following emergency engine operational requirements specified in 40 CFR 63.6640(f) of the National Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE) – Part 63, Subpart ZZZZ (area source MACT- subpart

ZZZZ):

- a) unlimited use for emergencies (e.g., power outage, fire, flood)
- b) may operate for 100 hours/year for maintenance/testing
- c) the 50 hours /year of the 100 hours / year allocation can be used for non-emergency situations if no financial arrangement, or for local reliability as part of a financial arrangement with another entity if specific criteria is met (existing RICE at area sources of HAPs only).

The State of Michigan has not accepted delegation from the EPA to implement and enforce the provisions of the area source MACT in subpart ZZZZ. This federal regulation has not been adopted into the State of Michigan, Air Quality Division, Part 9 rules. Consequently, the emergency generators at the IRS building were not evaluated with respect to the applicable requirements of the area source MACT in subpart ZZZZ. The EPA has the authority to do so.

MAERS – MICHIGAN AIR EMISSIONS REPORTING SYSTEM

Facilities subject to NSPS are Category II sources - subject to air quality fees. In Michigan, beginning in 2007, sources which have natural gas-fired boilers subject to NSPS Subpart Dc have been granted waivers of the air quality fee if they meet all the requirements cited below:

- The sources are subject to fees only because of the Subpart Dc boilers
- The boilers have a maximum design heat input capacity of 50 million BTU/hr. or less.
- The boilers are capable of burning only natural gas (no oil backup)

This source complies with the first two above listed criteria to qualify for the fee waiver but uses fuel oil as a back-up fuel. Therefore, based on their status as a Dc source not meeting one the requirements for fee waiver, the facility is subject to an annual fee. The annual fee includes a fix value or facility charge (Category II) plus an emission charge in \$ per ton of billable emissions.

The 2017- MAERS report was audited in May 2018. AQD passed the audit without revisions. - See MACES report CA_M480344538.

COMPLIANCE HISTORY

There have been no complaints associated with the operations at the facility, no pending administrative consent orders, and no violation notices issued since the last inspection. However, the inspection conducted in year 2013 found that the facility had problems with the calculations of some of the reported emissions. Specifically, they had problems with the estimated 12-month rolling totals at the end of each month. The AQD inspector provided excel templates with embedded formulas for the calculations and requested the facility to submit revised records. The review was completed and AQD advised the facility to keep the suggested procedures as part of their routine calculations.

INSPECTION NARRATIVE

Due to security requirements in the IRS Building an advance phone call was necessary to schedule the visit. AQD staff arrived at the facility at about 9:15 AM on 2/22/2018. After clearing security, I met with representatives of Urban Services and with staff from GSA services. The following people were present at the opening meeting: Mr. James Chastine and Eric Prince from Urban Services; Mr. Patrick B. Russell and John Peterson from GSA/PBS Northern Service Center Operation Division. Mr. James Chastine and Mr. Prince are the new contacts for permitting and compliance issues pertaining the air sources of pollutants at the

IRS Building.

After the introductions, I explained the purpose of the inspection. The purpose of the inspection was to determine compliance with the Federal Clean Air Act; Article II, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451 and Michigan Department of Environmental Quality, Air Quality Division (MDEQ-AQD) rules.

In the opening meeting we discussed the transition of responsibilities with respect to the implementation of the provisions and monitoring/recordkeeping conditions of the permit to install PTI 216-98. A question was brought up at the meeting due to the change in ownership. The meeting attendees wanted to know the procedure for the transfer of ownership and name change. They also asked if the name change would be reflected in the current permit agreement, PTI 216-98. The staff representing GSA at the meeting were unclear about who the responsible official or authorized person from GSA would be. I notified them that whoever the person might be, he or she would be accountable for signing and certifying the truth, accuracy, and completeness of permit modifications, monitoring and other reports. GSA indicated they needed to confirm the information and would contact AQD. This issue was explained by AQD in a follow-up email dated 2/28/2018 and three additional reminders sent to the facility representatives. For details on this issue, please refer to the emails in AQD facility files. GSA must submit a formal request to AQD for ownership transfer per Rule 219(1)(a) as it is explained at the end of this report under "final compliance and facility follow up items".

In addition to the PTI requirements I discussed the federal regulations (NSPS and MACT standards cited earlier in this report) applicable to the boilers and to the emergency generators installed at the IRS building. Hands-outs with information about the cited federal regulations were provided to the facility.

After the introductions, we toured the areas of the building where the permitted equipment is installed to ensure accounting for any changes. Monthly and annual records for fuel usage, as well as emission calculations were available for review. Some records were handed out during the inspection and others were provided by Mr. Chastine via email during the months following the inspection.

The records gathered for this inspection include:

1. Fuel oil and natural gas monthly meter readings for year 2017
2. A sample of a boiler logs for Boiler No. 1 dated 2/22/2018. The log shows gas flows recorded at 2-hours interval
3. UST Diesel Metering System printout sample
4. Monthly and 12-month rolling period fuel consumption and NOx emissions calculations (AQD revised the original records submitted by the facility)
5. Safety Data Sheet (SDS) for "Marathon Petroleum No. 2 Low Sulfur Diesel Dyed 500 ppm Sulfur Max" indicating a maximum sulfur content of 0.05 %
6. New boiler-log template prepared by Urban Services Group (USG) to record gas flow per boiler and operational conditions, every two-hours
7. New generator-log template prepared by USG to record fuel oil flow and operational conditions during generator testing under load
8. New template form prepared by USG to record the total daily fuel usage at the facility, including the monthly totals for fuel oil and natural gas.
9. Annual inspections and preventive maintenance checklists for the boilers and

generators systems (year 2017)

10. Diesel generators specs and emissions data for the engines
11. Boilers and generators maintenance guide.

Pictures of boiler No.4 were taken during the inspection to verify that the equipment was disconnected.

During the most recent 12-month period the generators have only been operated for readiness testing purposes. All generators must be run under load for 30 minutes at 20% load on the last week of each month. Power-failures requiring their usage for emergencies purposes have not occurred. The boilers have been fired with natural gas and tested with fuel-oil to verify functionality.

We met again at the end of the facility tour for a closure meeting where we discussed the pending records and follow up. I left the facility at about 4:30 PM

Most of the records requested during the inspection were provided by Mr. Chastine via email on March 9, 2018. AQD reviewed the records and provided several comments. AQD found a few discrepancies between the monthly fuel oil usage monitored by the facility via meter readings and the recorded values in the excel forms. Some of the numbers did not match. Similar reporting problems were found for a few values in the monthly records for natural gas usage. The information was revised/corrected by Mr. Chastine and re-submitted to AQD on March 20 and 21, 2018. After this submittal from USG, AQD requested revision of the excel sheet that summarized the fuel usage and emission rates, which had been developed in compliance with the PTI conditions. The requested revision was provided by Mr. Chastine on May 18, 2018. In this submittal, AQD noticed that the calculated 12-month rolling for fuel usage and NOx emissions did not include the years before 2015 and additional review was requested.

In summary, during the review of the records provided by Mr. Chastine, AQD noticed that the recent changes/transition in the personnel assigned to manage the air-permit requirements at this facility have generated some difficulties in passing along the information provided by AQD in 2013 (i.e. records tracking and excel forms to calculate the 12-month rolling). Although the facility continues monitoring and keeping monthly records for fuel-oil and natural gas usage and calculating monthly emissions, the 12-month rolling values still showed errors. Therefore, to solve this problem, I provided a revised excel-forms to Mr. Chastine (via email on July 6, 2018). The revised sheets incorporated the monthly natural gas and fuel-oil consumption records collected by the facility from January 2009 to December 2017, as well as the revised 12-month rolling fuel usage and emissions calculations. Summary tables with the final records are saved with the inspection report in AQD facility files.

COMPLIANCE EVALUATION

NSPS Subpart Dc – Applicable Requirements

This section of the report examines the portion of Subpart Dc that applies to the boilers at IRS building which burn distillate oil as a back up to natural gas.

Distillate oil is defined in Subpart Dc (60.41c) as fuel oil numbers 1 and 2, per ASTM D396-78. According to this definition, distillate oil contains a maximum of 0.5 % percent sulfur by weight.

Standard for sulfur dioxide (SO₂) – 60.42c – Partial Compliance

Section 60.42c of NSPS Subpart Dc regulates the amount of SO₂ that may be emitted. Compliance with the SO₂ standard for boilers that combust distillate oil may be demonstrated using one of the following options cited under 60.42c(d):

- Demonstrate that actual SO₂ emissions are less than or equal to 0.5 pounds of SO₂ per million Btu heat input, or
- Demonstrate that the fuel sulfur content is less than or equal to 0.5 percent by weight.

Fuel supplier certification is required under 60.42c(h)(1) for distillate oil-fired facilities with heat input between 10 and 100 MMBtu/hr. This section of the regulation indicates that for each shipment of distillate oil received from the supplier, the fuel supplier should provide a certification to demonstrate that the sulfur content of the oil is below the limit. Fuel supplier certification for distillate oil must be maintained for at least two years (per NSPS Dc) and made it available to AQD upon request. The certification must include the information listed under 60.48c(f)(1) - described later in this report.

Evaluation:60.42c(d) –In Compliance

This facility elected to demonstrate compliance with the standards for SO₂ based on the sulfur content in the fuel oil used for combustion in the boilers, which is the alternative option described under 60.42c(d). The boilers combust “Marathon Petroleum No. 2 Low Sulfur Diesel Dyed 500 ppm Sulfur Max” as a backup fuel. The SDS for this product which was provided during initial notification in 2006 confirms a maximum 0.05 weight percent sulfur. A revised SDS dated 5/14/2015 is attached to this report.

60.42c(h)(1) –Unknown

The facility has failed to provide recent records. The most recent record in our files of product certification for shipments received from the supplier is dated 7/11/2006. A fax from Charles White (D & W Oil Co) sent to Darryl Snabes (GSA) was forwarded to AQD. The fax cover indicated that a shipment of 10,000 gallons of fuel oil was scheduled for delivery to the facility on July 14, 2006.

During this inspection we requested fuel oil supply records, but there were no other records in their files besides the one for year 2006. It appears as if they have not received any other shipment of fuel oil since 2006. Based on the historical records of fuel oil usage per year, it seems reasonable that the storage tanks have not needed to be filled since 2006. AQD will verify this statement in a follow-up visit.

Standard for Particulate Matter (PM) – 60.43c – Not Applicable

Federal enforceable limits for PM and standards for opacity performance testing are regulated under 60.43c. Section 60.43c(c) applies to boilers that combust coal, wood or oil; however, the opacity standard only applies to boilers with heat input capacities between 30 and 100 million Btu/hour. The boilers at the IRS building have maximum heat input capacities of 29.3 million Btu/hour.

Performance Tests Methods and Monitoring for SO₂ and PM – 60.44c to 60.47c:

The following provisions cited under sections 60.44c to 60.47c apply to the boilers at the IRS building:

60.44c(h) - Unknown

This section of the regulation applies to affected facilities that chose to demonstrate compliance with the SO₂ standards based on fuel supplier certification. The performance test

shall consist of the certification from the fuel supplier, as described in §60.48c(f), as applicable.

The facility has not submitted the required fuel certification from the supplier of the diesel fuel since 2006. (for details see 60.42c(h)(1) above)

60.45c – Not Applicable

The boilers are not subject to performance tests described in this section for particulate matter because they are not subject to standard for particulate Matter of section 60.43c

60.46c(e) – Not Applicable

According to this section, affected facilities that chose to demonstrate compliance with the SO₂ emissions standards based on fuel supplier certification are not subject to emission limits or monitoring requirements for SO₂. Such is the case of the boilers at the IRS building.

60.47c – Not Applicable

The boilers are not subject to opacity standards or emissions monitoring for PM because they are covered under the exception cited in 60.47c(c), which allows owners and operators of affected facilities that burn only distillate oil that contains no more than 0.5 weight percent sulfur to follow the fuel supplier certification requirements in 60.48c(f).

Reporting and recordkeeping requirements - 60.48c - Partial Compliance

The following requirements cited under section 60.48c are applicable to the IRS boilers:

60.48c(a)(1) – In Compliance

Per section 60.48c(a)(1) an initial notification must be submitted to AQD. The notification shall include the date of construction or reconstruction of the boilers, the actual startup date, the design heat input capacity of the boilers, and identification of fuels to be combusted in the boilers. The other requirements of section 60.48c(a) do not apply.

The information required by this section of Subpart Dc was provided by the facility in various documents submitted to the former Wayne County Department of Environment (WCDE) or to AQD during the permit process application in 1998. A letter dated May 12, 1998 from Michael Sadowski (Walsh Higgins's Property Manager) acknowledges that the boilers at the facility are subject to the NSPS Subpart Dc regulations. The letter indicated an initial construction in mid-1993, the start-up in December 1994 and full operation in April 1995. In addition, the technical information for the boilers was provided as part of the "equipment list and operational data" submitted by Michael Sadowski with the permit application packet dated May 15, 1998. According to the information in file, the facility has four identical boilers manufactured by Kewanee (serial numbers were provided for each boiler) using natural gas as primary fuel and low sulfur fuel-oil No. 2 as back-up fuel. The maximum firing rate for each boiler was specified to be 29295 MBH.

60.48c(d), 60.48c(e)(1) and 60.48c(e)(11) and 60.48c(j) – Non-Compliance

Section 60.48c(d) requires the source to submit reports to AQD. The reports shall include the following information from 60.48c(e), as applicable:

- Per 60.48c(e)(1), the calendar dates covering in the reporting period. For example, from July 1, 2006 to December 31, 2006.
- Per 60.48c(e)(11), fuel supplier certification records and certified statement signed by the owner or operator of the facility indicating that the records of fuel supplier certifications submitted represent all the fuel combusted during the reporting period.

According to 60.48c(j) the reporting period for the reports required under this subpart is each six-month period. Reports shall be submitted to AQD and shall be postmarked by the 30th day following the end of the reporting period.

The reports as described above have not been submitted to AQD. The last record that has information about fuel delivery from the supplier is dated 2006.

60.48c(f)(1) – In Compliance

Per 60.48c(f)(1), the fuel supplier certification shall include the following information:

- 1) The name of the oil supplier.
- 2) A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in 60.41c.
- 3) The sulfur content or maximum sulfur content of the oil.

AQD is accepting the SDS for “Marathon Petroleum No. 2 Low Sulfur Diesel Dyed 500 ppm Sulfur Max” to satisfy this requirement

60.48c(g) –In Compliance

Paragraph (g)(1) of section 60.48c requires the owner or operator of each affected facility to record and maintain records of the amount of each fuel combusted during each operating day. Paragraphs (g)(2) and (g)(3) of section 60.48c offer alternatives to meeting the requirements of paragraph (g)(1), as follows:

60.48c(g)(2) - the owner or operator of an affected facility that combusts only natural gas, wood, fuels using fuel certification in 60.48c(f) to demonstrate compliance with the SO₂ standard, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to record and maintain records of the amount of each fuel combusted during each calendar month.

60.48c(g)(3) - the owner or operator of an affected facility or multiple affected facilities located on a contiguous property unit where the only fuels combusted in any steam generating unit (including steam generating units not subject to this subpart) at that property are natural gas, wood, distillate oil meeting the most current requirements in 60.42c to use fuel certification to demonstrate compliance with the SO₂ standard, and/or fuels, excluding coal and residual oil, not subject to an emissions standard (excluding opacity) may elect to record and maintain records of the total amount of each steam generating unit fuel delivered to that property during each calendar month.

Currently, the facility is recording and maintaining records of the total amount of each fuel (distillate-oil and natural gas) that is delivered to the property during each calendar month. Thus, the facility is using the alternative described in section 60.42c(g)(3).

60.48c(i) – Partial Compliance

All records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.

The fuel records are maintained for more than two years but the fuel supplier certification records were not available.

Exempt Equipment

The underground 20,000-gallon tanks - east and west - used for the storage of diesel fuel are exempt pursuant to R 336.1284 (2)(d) which states (in part) that the requirement of R 336.1201(1) to obtain a permit to install does not apply to containers, reservoirs, or tanks used exclusively for the storage of no. 1 to no. 6 fuel oils as specified in ASTM D396.

PTI 216-98 – Evaluation of Special Conditions

Records for the period from 2009 to 2017 were used to evaluate compliance with the monitoring and recordkeeping requirements of PTI 216-98.

For practical purposes the special conditions of the PTI 216-98 are in some cases paraphrased:

1. Not Applicable - This condition refers to the submittal of records, notifications or request for approval to Wayne County. The AQD is the regulatory authority.

2. In Compliance - The total combined nitrogen oxide emissions as nitrogen dioxide (NOx) from the boilers and emergency generators while burning natural gas and No. 2 fuel oil shall not exceed 78.1 tons per year (TPY) on a 12-month rolling time period as determined at the end of each calendar month.

The highest 12-month rolling was 1.271 TPY reported for the 12-month period ending August 2016. The NOx emissions were calculated based on the emissions factors cited on PTI 216-98; 0.02 pounds of NOx per gallon of No. 2 fuel oil usage in boilers, 0.87 pounds of NOx per gallon of No. 2 fuel oil usage in generators and 140 pounds of NOx per million cubic feet of natural gas.

3. In Substantial Compliance – The facility shall not operate these boilers unless all the applicable provisions of the federal requirements of 40 CFR, Part 60, Subpart Dc are met.

This condition was evaluated in detail under “NSPS Subpart Dc – Applicable Requirements”. The facility is compliance with all the applicable requirements except for the reporting requirements described under 60.48c(d) which are related to the fuel oil certification for shipments received from the supplier. The frequency of reporting is described under 60.48c(f). The last record in our files is dated 7/11/2006. It is unknown if that was the last time a shipment of fuel oil was delivered to the facility. However, regardless the frequency of fuel delivery, the facility shall submit the reports to AQD every six-month period.

4. In Compliance - The facility shall burn only natural gas or virgin No. 2 fuel oil in Boilers 1, 2, 3 or 4. The diesel generators 1, 2, 3 or 4 shall only burn virgin No. 2 fuel oil. This permit condition defines a fuel oil as a product originated from a petroleum refinery not adulterated by the addition of any amount of used oils, off-specification oils, waste oils, recycled oils, or hazardous substances.

The facility uses Red-Dyed Fuel Oil No. 2 from Marathon Petroleum. The SDS from Marathon includes the composition and specs for the fuel. Samples of the fuel oil in the tanks were not taken during the inspection, but to the best of our knowledge the fuel oil has not been adulterated.

5, 6, and 7 – Unknown- Facility estimates pounds per year of NOx
The permit sets NOx emission rates limit for each equipment, as follows:

Fuel	Each Boiler	Each Generator
Firing Natural Gas	4.1 pound per hour	
Firing Fuel Oil No. 2	4.1 pound per hour	120.1 pound per hour

These short-term limits were not evaluated during this inspection. Stack test information is not available, and testing has not been requested by AQD. The facility estimates NOx monthly emissions. The highest estimated NOx emissions from the generators were 975.27 pounds, reported in October 2015.

The highest estimated NOx emissions from the boilers when natural gas is burned were 26.71 pounds reported for August 2011. Using an average time (i.e. 30 days in a month and 24 hours per day) to calculate NOx hourly rates, the monthly quantities translate into 1.35 pounds per hour for the generators and 0.04 pounds per hour for the boilers when natural gas is burned.

8. In Compliance - The total virgin No. 2 fuel oil usage in all the boilers and generators does not exceed the permit limit of 1,100,000 gallons per year. The total combined virgin No.2 oil usage in all emergency generators does not exceed 100,000 gallons per year. Both totals are based on a 12-month rolling time period as determined at the end of each calendar month.

The highest 12-month rolling total fuel oil burned at the facility was 2,727 gallons, reported for the 12-month period ending August 2016. Same value was reported for the 12-month period ending September 2016. Please note that the cited record represents the total fuel oil burned at the facility assuming that all the fuel oil is burned by the emergency generators. It appears as if the facility has not maintained separate records of the fuel-oil burned in the boilers or they have not been tracked consistently over the years. Nevertheless, this is a conservative approach in terms of the estimated pollutants. The estimated NOx emissions assuming all fuel oil from the storage tanks is burned in the generators are higher than the emissions calculated if a portion of the fuel oil stored in the tanks is being burned in the boilers.

The facility started tracking fuel oil burned in the boilers, in a more consistent manner, in year 2017. Going forward, the facility will continue to track the fuel oil burned in the boilers.

9. In Compliance - The total combined natural gas usage in all the boilers shall not exceed 350.4 million cubic feet per year based on a 12-month rolling time period as determined at the end of each calendar month.

The highest total combined natural gas usage in all the boilers was 1.8 million cubic feet reported for the 12-month period ending April 2010.

10. Partial Compliance - The sulfur content of the virgin No. 2 fuel oil as combusted in the boilers shall not exceed 0.1 percent by weight. The facility shall obtain and record the sulfur content of each shipment of the fuel oil as received in a manner and with test methods acceptable to AQD. All data shall be kept on file for a period of at least five years and made available to AQD upon request. This condition is necessary to assure compliance with the emission limits for sulfur dioxide which have been established pursuant to Wayne County Ordinance, Section 6, Rule 6010.

The SDS from Marathon Petroleum reports the usage of Fuel Oil No. 2 Low Sulfur Diesel Dyed with a maximum sulfur contain of 500 ppm (0.05 percent weight) which is below the 0.1

percent required by permit limits. However, the facility has failed to obtain and record the sulfur content for each shipment of the fuel oil as received.

11. Substantially in compliance - According to condition 11 the facility shall monitor and record the monthly natural gas burned in each boiler and the monthly No. 2 fuel oil burned at the facility in each of the boilers in a manner and with instrumentation acceptable to AQD. All such records including the 12-month rolling time period of fuel usage calculations shall be kept on file for the most recent five-year period and be made available to the Division upon request.

Based on a sample of a boiler-log that was collected during this inspection, the operators use a daily log to record the natural gas or fuel oil flow per boiler, in a two-hour interval. However, the information collected in those logs is not used for developing the monthly records. That is, they do not track the monthly rate of fuel used in each boiler. Instead, they take monthly metering readings of the natural gas volume that is distributed to the facility. They use a gas-meter totalizer located at the gas main distribution line entering the facility. They estimate that 95% of that total gas flow is used for consumption in the combined four boilers. Going forward the facility should measure and record the monthly rate used by the boilers, either as a combined total or by each boiler individually. AQD can't accept the assigned 95% of the incoming gas to the boilers because there is no basis that support that allocation. However, AQD does note that the facility is in compliance with its 12-month rolling natural gas limit even if it is presumed that 100 % of the natural gas combusted at the facility is burned in the boilers.

The records of natural gas usage are available for the required five-year period. Fuel-oil records were only tracked for year 2017.

In conclusion, at this time, AQD accepted the alternative monitoring described in section 60.42c(g)(3) of the NSPS Subpart Dc. and the facility is recording and maintaining records of the total amount of each fuel (distillate-oil and natural gas) that is delivered to the property during each calendar month.

12. In Compliance – The facility shall monitor and record the monthly No. 2 fuel oil burned at the facility for all the generators combined in a manner and with instrumentation acceptable to AQD. All such records including the 12-month rolling time period of fuel usage calculations shall be kept on file for the most recent five-year period and be made available to the AQD upon request.

The facility uses the TLS-350 Veeder-Root system to monitor the amount of fuel oil stored in the underground east and west storage tanks (UST). This UST monitoring system is a diesel fuel level and leak detection system that tracks the gallons of fuel oil used monthly. The highest monthly fuel oil usage was 1,121 gallons recorded for October 2015 and the highest 12-month rolling was 2,727 gallons per year.

13. Substantially in Compliance - The facility estimates and records the total combined NOx emissions from all the sources in a manner acceptable to AQD. All such records including the 12-month rolling time period of NOx emission calculations are kept on file for the most recent five-year period and were available to the AQD when requested. Records from 2009 to 2017 were provided to AQD. The only exception is the estimated NOx emissions from the boilers when fuel oil is burned, which were only available for the year 2017.

14. In Compliance - The exhaust gases from the boilers shall be discharged unobstructed vertically upwards to the ambient air from stacks with the configurations cited in the permit. Since the permit was issued, there have been no changes to the configuration, diameters or heights of the stacks.

FINAL COMPLIANCE DETERMINATION AND FOLLOW UP ITEMS

The facility appears to be in substantial compliance with the Federal Clean Air Act; Article II, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451 and with the provisions and requirements of the permit to install No. 216-98.

The following items need improvement or immediate action:

1. Maintain and update the tracking forms so that the fuel usage and NOx emission rates are estimated according to the permit requirements. Make sure the 12-month rolling is calculated correctly.
2. Keep separate records for the fuel oil burned in the boilers and the NOx emissions from the boilers.
3. If the facility is unable to monitor or maintain the records of natural gas used by each boiler, use the gas-meter totalizer records from the gas main distribution line entering the facility as the total gas used by the boilers.
4. Obtain and record the sulfur content for each shipment of the fuel oil as received.
5. Fuel supplier certifications reports shall be submitted to AQD each six-month period in accordance with 60.48c(d) of NSPS Subpart Dc. Reports shall be postmarked by the 30th day following the end of the reporting period.
6. A writing request for change of ownership and operational control shall be submitted to the Detroit district supervisor with a copy sent to the AQD in Lansing. Request should include the following information as required by Rule 219(1)(a):
 - Description of the stationary source, process, or process equipment.
 - As applicable; a listing of the permits, voluntary agreements, consent orders, or judgments involved in the request.
 - Identification of the new owner and the specific date for the transfer of responsibility, coverage, and liability.
 - A written statement from the new owners accepting responsibility for terms of the permit and associated agreements or judgments.

AQD will follow up with the facility to ensure that the action items listed above are implemented.

NAME G. Anderson

DATE 8/1/2018

SUPERVISOR JK