DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: On-site Inspection

B283573585

FACILITY: J. H. Campbell Plant		**SRN / ID:** B2835
LOCATION: 17000 Croswell, WEST OLIVE		**DISTRICT:** Grand Rapids
CITY: WEST OLIVE		**COUNTY:** OTTAWA
CONTACT: Joseph Firlit , Manager of Engineering Support		**ACTIVITY DATE:** 09/10/2024
STAFF: April Lazzaro	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MAJOR
SUBJECT: Unannounced, scheduled inspection.		
RESOLVED COMPLAINTS:		

Air Quality Division staff, April Lazzaro conducted an unannounced, scheduled inspection of the Consumers Energy, JH Campbell coal fired electric generating facility located at 17000 Croswell, Port Sheldon, Michigan. The purpose of this inspection was to determine the facility's compliance with state and federal air pollution regulations as well as Renewable Operating Permit (ROP) MI-ROP-B2835-2020b. Upon arrival at the facility no odors or visible emissions were identified. Accompanying AQD at various times were Roger Vargo, Joseph Firlit and Christopher Desanctis.

Facility Description

Consumers Energy JH Campbell (JHC) plant is a coal fired electric generating station. There are three (3) units, which use primarily pulverized Western Coal, but have the capability of utilizing Eastern Coal as well. The facility is located adjacent to Lake Michigan, across from Pigeon Lake.

The three (3) units were installed in 1958, 1963, and 1974. Table 1 outlines each of the three (3) boiler designs and the control equipment associated with each respective unit.

Table 1: JHC Boiler Design and Specifications as of September 2022

	Unit 1[A]	Unit 2[A]	Unit 3
Capacity and Description	2490 MMBtu per hour dry bottom tangential fired boiler with fuel oil startup capabilities	3560 MMBtu per hour wall-fired boiler (converted from cell burner) with fuel oil startup capability	8420 MMBtu per hour dry bottom, wall0fired boiler with fuel startup capability.
Coal Type Capability	100% Western Coal	0 – 100% Western Coal 0-100% Eastern Coal	100% Western Coal
	ACI[B]	ACI[B]	ACI[B]

Pollution Control Equipment	DSI[C] PJFF[E] Low NOx Burners	DSI[C] PJFF[E] SCR[F] Low NOx Burners	SDA[D] PJFF[E] SCR[F] Low NOx Burners

[A] Units 1 and 2 exhaust through a common stack

[B] ACI – Activated Carbon Injection

[C] DSI – Dry Sorbent Injection

[D] SDA – Spray Dry Absorption

[E] PJFF – Pulse Jet Fabric Filter

[F] SCR – Selective Catalytic Reduction

JHC is currently operating under Title V permit MI-ROP-B2835-2020b. The most recent modification to the permit, in May 2021, was to address the termination of the Consent Decree that was formerly held with USEPA; the consent decree was terminated as of September 2, 2020. The provisions of the Consent Decree had been incorporated into the ROP via PTI's and with the termination of that decree some items could be updated and were done so via a PTI and modification of the ROP.

In addition to the applicable Michigan air quality rules, JHC is subject to the provisions of the National Emission Standards for Hazardous Air Pollutants (NESHAP) 40 CFR Part 63 Subparts UUUUU, for Coal and Oil Fired Electric Utility Steam Generating Units, ZZZZ, for Stationary Reciprocating Internal Combustion Engines, and DDDDD, for Industrial, Commercial, and Institutional Boilers and Process Heaters at Major Sources. JHC is also subject to the provisions of the New Source Performance Standards (NSPS) 40 CFR Part 60 Subparts Y for Coal Preparation and Processing Plants, JJJJ for Stationary Reciprocating Spark Ignition Internal Combustion Engines and IIII for Stationary Reciprocating Internal Compression Ignition Engines. Additional applicable Federal Regulations include: 40 CFR Part 64, Compliance Assurance Monitoring (CAM), and 40 CFR Part 96 for NOx trading. Each of the three (3) units are also subject to the provisions of the Cross-State Air Pollution Rules (CSAPR). JHC is also subject to Title IV (Acid Rain).

This facility is slated to be decommissioned and no longer operating by May 31, 2025.

Compliance Evaluation

EUBOILER1

Unit 1 is a 2490 MMBTU tangential fired boiler with fuel oil startup capabilities. The emissions from this unit are controlled by low-NOx burners, ACI, DSI, and a PJFF baghouse. All control equipment was installed and properly operating. This unit is subject to the provisions of 40 CFR Part 63 Subpart UUUUU for Coal and Oil-fired Electric Utility Steam Generating Units, also known as the Mercury and Air Toxics

Standards (MATS), and 40 CFR Part 64, Compliance Assurance Monitoring (CAM). The CAM requirements are in FGBOILER12, and the MATS requirements are located in FGMATS_U12.

PM emissions are limited to 0.16 pounds per 1,000 pounds exhaust gas, corrected to 50% excess air and to 0.015 pounds per MMBtu heat input. The most recent stack testing, conducted in April 2024 showed compliance with the emission limit. The test report was not reviewed/validated by the Technical Programs Unit. The unit is currently operating at a 0.31% by weight sulfur content in the coal based on the daily equivalent emission rate allowed by Rule 401(4).

The facility also has system-wide Annual NOx tonnage limitations and System-Wide Annual SO_2 tonnage limitations. These limits are combined with other fleetwide emissions including the Campbell, Cobb, Karn, and Weadock plants, as well as the Whiting Plant in Luna Pier, Michigan. The Cobb facility closed in 2016, Karn closed in March 2023, Weadock closed in 2020 and Whiting closed in 2016. The values below are for calendar year 2023, so they would include emissions only for Campbell and Karn.

The system-wide emissions are identified below in Table 2:

Table 2: System-wide emissions

NO_X	**6,600 System-Wide Annual Tonnage Limitation**	**2,797.6 tons**	**Annual**
SO_2	**10,900 System-Wide Annual Tonnage Limitation**	**4461.46 tons**	**Annual**

Table 3 outlines emission limitations for the unit and data collected during the records request.

Table 3: Emissions data for EUBOILER1

Unit Number	Pollutant	Limit	Observed Value	Averaging time
1	PM	0.16 pound per 1,000 pounds exhaust gas, corrected to 50% excess air	Verified through stack testing on April 29&30, 2024 0.0019 lb/1,000lb exhaust gas	Hourly
1	NO_x	0.220 lb/MMBtu	0.155 lb/MMBtu	365 Day Rolling Average

1	SO_2	0.350 lb/MMBtu	0.268 lb/MMBtu	30 Day Rolling Average
1	SO_2	0.290 lb/MMBtu	0.272 lb/MMBtu	90 Day Rolling Average
1	Hg	1.2 lbs./TBTU[A]	0.669 lb/TBTU	30 Day Rolling Average

[A] This limit is a MATS limit

JHC uses a Part 75 Certified CEMS to continuously monitor SO_2 emissions. In addition to the SO_2 CEMS, JHC also has a NO_x, and a mercury (Hg) CEMS along with a COMS unit.

JHC is required to have a malfunction abatement plan (MAP) for this unit, which has been successfully implemented and is maintained. This unit is also subject to 40 CFR Part 64 – Compliance Assurance Monitoring (CAM), for which the provisions are addressed in FGBOILER12 for both boilers 1 and 2. No CAM exceedances/excursions or monitor downtime have been reported.

This unit is subject to the Cross-State Air Pollution Rules (CSAPR) and Acid Rain programs. Compliance demonstrations for both are reported directly to USEPA.

The stack dimensions were not explicitly measured, the dimensions appeared to be correct; EUBOILER1 shares a stack with EUBOILER2.

EUBOILER2

Unit 2 is a 3560 MMBTU wall-fired boiler with fuel start-up capability. Emissions are controlled by low-NOx burners, a SCR, ACI, DSI, and a PFJJ baghouse. This unit is also subject to MATS and to CAM. CAM requirements can be found in FGBOILER12, and MATS requirements can be found in FGMATS_U12. No CAM exceedances/excursions or monitor downtime have been reported.

The unit is currently operating at a 0.34% by weight sulfur content in the coal based on the daily equivalent emission rate allowed by Rule 401(4).

Table 4 outlines emission limitations for the unit and data collected during the records request.

Table 4: Emissions data for Boiler 2

Unit Number	Pollutant	Limit	Observed Value	Averaging time
2	PM			Hourly

		0.15 lb/1,000 lb. exhaust gas, corrected to 50% excess air	Verified through stack testing on July 30, 2024 0.0004 lb/1,000lb exhaust gas	
2	NO_x	0.100 lb/ MMBtu	0.047 lb/MMBtu	30 Day Rolling Average
2	NO_x	0.080 lb/ MMBtu	0.049 lb/MMBtu	90 Day Rolling Average
2	SO_2	0.320 lb/ MMBtu	0.284 lb/MMBtu	365 Day Rolling Average
2	Mercury (Hg)	1.2 lbs./TBTU[A]	0.447 lb/TBTU	30 Day Rolling Average

[A] This limit is a MATS limit

JHC uses a Part 75 Certified continuous emissions monitoring system (CEMS) to continuously monitor SO_2 emissions, as required by the ROP. In addition to the SO_2 CEMS, JHC also has a NO_x, and a mercury CEMS along with a COMS unit.

EUBOILER3

Boiler 3 is an 8240 MMBtu/hr. dry bottom, wall-fired boiler with fuel oil startup capability. Emissions are controlled by low-NOx burners, a SCR, ACI, SDA, and a PJFF baghouse. This unit was also operating at low load on the day of the inspection. This unit is also subject to the requirements of 40 CFR Part 63 Subpart UUUUU, MATS and the evaluation of that regulation can be found in FGMATS_U3.

PM emissions are limited to 0.030 lbs./ MMBtu heat input, 0.10 lbs./MMBtu heat input, and 0.015 lbs./MMBtu heat input. JHC uses a PM CEMS to demonstrate compliance with PM limitations. Additionally, in a letter dated January 30, 2020, USEPA granted the permission of the use of the PM CEMS to demonstrate compliance with the filterable PM emission limits on a 3-hour rolling average basis in lieu of stack testing for filterable and condensable PM. This change was subsequently updated in the ROP through a PTI and rolled into the ROP during the most recent ROP modification in May 2021. The unit is currently operating at a 0.31% by weight sulfur content in the coal based on the daily equivalent emission rate allowed by Rule 401(4).

The Part 75 Certified CEMS for SO_2 is used to demonstrate compliance with the HCl limit, as allowed under the MATS regulation. The rolling 30-day SO_2 limit is 0.20 lb./MMBtu.

Table 5 outlines emission limitations for the unit and data collected during the records request.

Table 5: Emissions data for Boiler 3

Unit Number	Pollutant	Limit	Observed Value	Averaging time
3	NO_x	18,750 tpy	1,459 tpy[A]	12 Month Rolling Average
3	NO_x	0.100 lb/MMBTU	0.054 lb/MMBtu	30 Day Rolling Average
3	SO_2	31,650 tpy	1,360 tpy[A]	12 Month Rolling Average
3	SO_2	0.085 lb/MMBtu	0.050 lb/MMBtu	30 Day Rolling Average
3	SO_2	0.070 lb/MMBtu	0.052 lb/MMBtu	365 Day Rolling Average
3	PM	1,080 tpy	13 tpy[A]	12 Month Rolling Average

[A] The 12-month rolling value is through August 2024

JHC uses a Part 75 Certified continuous emissions monitoring system (CEMS) to continuously monitor NO_x, CO_2, and SO_2 emissions.

JHC is required to have a MAP for this unit, for which the facility maintains and has implemented. This unit is also subject to 40 CFR Part 60 Subpart Da, the NSPS for Electric Utility Steam Generating Units.

This unit is subject to Acid Rain and the CSAPR programs.

The stack dimensions were not explicitly measured, but the dimensions appeared to be correct.

EUCOALHAND

This emission unit consists of all the coal handling operations throughout the facility and is comprised of two (2) dumper buildings, transfer conveyors, a transfer building, a breaker house, bunker rooms, and the coal pile storage area itself.

To control emissions from the processes just mentioned, JHC uses various enclosures, baghouses, and dust suppression measures. The dust collectors serving the breaker house, bunker houses, and the reclaim hopper (DC #4, #5, #6, #7, and #9) are subject to the provisions of the New Source Performance Standards 40 CF Part 60 Subpart Y for Coal Preparation and Processing Plants. Initial Performance testing for these baghouses has already been completed.

PM emissions are limited to 0.10 pounds per 1,000 pounds exhaust gas, on a dry basis from each discharge point, as verifiable through any requested stack testing. No testing is being requested at this time. Each discharge point also has an opacity limit of 20%; all baghouses were properly operating during the inspection, and no opacity was observed at the time of the inspection, and JHC is monitoring visible emissions from the dust collectors once per day, when operating. Each of the baghouses are equipped with pressure drop indicators and were operating within the specified range of 1-7" WC.

Dust Collectors #1, #10, and #11 which serve the dumper houses, the coal yard hopper, and Units 1 and 2 are also subject to the provisions of 40 CFR Part 64 for Compliance Assurance Monitoring (CAM). No CAM exceedances/excursions or monitor downtime have been reported.

Daily opacity records were requested and received for July 2024. Entries on the form indicated that all required daily opacity check were conducted.

EUSDA_U3

This emission unit covers the lime preparation operations that support the SDA for Boiler 3, and include the storage silos, vertical ball mills, and lime slurry transfer and product tanks. The storage silos are controlled by bin vent filters, the ball mill emissions are controlled by spray scrubbers, and the recycle mix tank emissions are controlled by a spray scrubber. The two (2) recycle silos are subject to the provisions of 40 CFR Part 64 for CAM. No CAM exceedances/excursions or monitor downtime have been reported.

There is a 5% opacity limit for each of the bin vent filters and each spray scrubber in EUSDA_U3. PM emissions are limited to 0.004 gr/dscf of exhaust gas from the bin vent filters and 0.01 gr/dscf of exhaust gas for the spray scrubber. Additional PM_{10} limits for EUSDA_U3 are 0.021 pph and 0.024 pph for various spray scrubber emission points, and 0.02 pph or 0.03 pph for the bin vent filter emission points. The $PM_{2.5}$ limit for the bin vent filters is 0.02 pph or 0.03 pph; while the $PM_{2.5}$ limits for the various spray scrubber emission points are 0.024 pph, and 0.021 pph. Testing may be requested to verify emission rates from this emission unit; testing, however, is not being requested at this time.

As previously mentioned, the recycle silos are subject to CAM, with opacity being used as the indicator for compliance with the PM limits. JHC conducts non-certified visible emissions observations to demonstrate compliance.

Additionally, JHC has properly implemented and maintains a MAP for this unit to ensure proper operation. Indicators from the MAP include monitoring differential pressure for the lime storage silos, recycle ash silos, and the filter separators. JHC is also monitoring and recording visible emissions from the appropriate points for this emission unit. The above-mentioned Campbell Complex fugitive dust plan also helps ensure minimal fugitive dust.

Daily opacity records were requested and received for July 2024. Entries on the form indicated that all required daily opacity check were conducted.

EUSDI_U12

This emission unit is for the dry sorbent injection (DSI) material handling for Boilers 1 and 2. The emission unit includes the sorbent silos (hydrated lime or other sorbent) and pneumatic transfer. No visible emissions were observed from this equipment during the inspection.

Each bin vent filter in EUSDI_U12 has an opacity limit of 5%. The bin vent filters also have a PM limit of 0.004 gr/dscf of exhaust gases, a PM_{10} limit of 0.08 pph, and a $PM_{2.5}$ limit of 0.08 pph. JHC has implemented and maintains a MAP to ensure proper operation. Indicators from the MAP include monitoring the differential pressure and the lime injection rate. JHC is also monitoring visible emissions from the appropriate bin vent filters, via non-certified visible emissions observations.

JHC also employs the Campbell Complex Fugitive dust plan for this emission unit to minimize fugitive emissions. Per the most recent quarterly fugitive dust report, appropriate measures have been taken to minimize fugitives.

Daily opacity records were requested and received for July 2024. Entries on the form indicated that all required daily opacity check were conducted.

EUACI_U123

All three (3) units activated carbon (or other sorbent) material handling, including the silos, are covered under this emission unit. Each bin vent filter has a PM emission limit of 0.004 gr/dscf of exhaust gas. Other various bin vent filters as part of this emission unit have additional PM emission limits, including PM_{10} limits of 0.45 pph and 0.41 pph, and $PM_{2.5}$ limits of 0.045 pph and 0.041 pph, depending on the emission point.

The Campbell Complex fugitive dust plan and the MAP, both of which have been implemented and maintained, help to minimize fugitive emissions, and ensure proper operation of the bin vent filters. Indicators in the MAP include monitoring the differential pressure and the injection rates, and the fill level. JHC is also monitoring and recording the visible emissions from the appropriate bin vent filters.

Daily opacity records were requested and received for July 2024. Entries on the form indicated that all required daily opacity check were conducted.

EUBYPRODUCT

This emission unit covers the ash and byproduct handling system that transports ash and byproduct from the plant to the disposal silos. Equipment included in this emission unit are transfer tanks, (2 for the Unit 3 system and 2 for the Unit 1 and 2 system) with associated vacuum exhausters, and common disposal silos and truck loading. Some of the transfer tanks, and the landfill silos in this emission unit are subject to the CAM requirements promulgated in 40 CFR Part 64.

There is an opacity limit of 5% from various bin vent filter emission points, as well as a PM limit of 0.004 gr/dscf of exhaust gas. The transfer tanks also have the PM emission limit of 0.004 gr/dscf of exhaust gases. Additional emission limits for the transfer tank vacuum exhausters include PM_{10} limits of 0.03 pph and $PM_{2.5}$ limits of 0.03 pph. The various bin vent filters have PM_{10} limits of 0.03 pph, 0.55 pph or 0.05 pph and $PM_{2.5}$ limits of 0.03 pph or 0.55 pph or 0.05 pph, depending on the vent.

Each byproduct transfer tanks vacuum exhaust is discharged to a PJFF baghouse for one of the three (3) boilers except when EUBOILER1 is not operating. In that instance, the exhaust from the filter/separator associated with EUBOILER2 may be exhausted to atmosphere. JHC is tracking where the exhaust is going, and when it is being exhausted to atmosphere. JHC is also noting if there are any visible emissions during the time the transfer tanks are being exhausted to atmosphere. Visible emissions are used as the indicator of the proper functioning of the PM control devices, for the CAM subject emission points.

JHC has implemented and maintains a MAP for this emission unit as well has utilizing fugitive dust control measures as outlined in the Campbell Complex fugitive dust plan. JHC has been submitting fugitive dust reports indicating the actions taken to minimize dust.

Daily opacity records were requested and received for July 2024. Entries on the form indicated that all required daily opacity check were conducted.

EUAUXBLR12

This emission unit is one (1) common auxiliary boiler for Units 1 and 2, which is a 17 MMBtu/Hr. limited use oil-fired tube boiler and has been identified as a limited use boiler. This boiler is subject to the provisions of 40 CFR Part 63 Subpart DDDDD for Industrial, Commercial, and Institutional Boilers and Process Heaters. Since this is a limited use boiler, the oil used in this boiler has a 10% annual capacity factor on the oil. This annual capacity factor means the ratio between the actual heat input to a boiler from the fuels burned during a calendar year to the potential heat input to the boiler had it been operated for 8,760 hours during a year at the maximum steady state design heat input capacity. The fuel burned in this boiler is limited to a sulfur content of 0.5% sulfur by weight based on a higher heating value of 18,000 btu/lb. Fuel records indicate the sulfur content is compliant with this limit.

Tune-ups are required ever five years, and records indicate the most recent tune-up was done on September 8, 2022, with all the required item checked and appropriate adjustments, as necessary. The Annual Compliance Report was properly submitted. Records for July 2024 were requested, and the facility informed AQD that the unit did not operate, as such fuel use for that month is zero.

EUCAT3DIESEL

This emission unit is a 9.4 MMBTU emergency diesel-fired stationary internal combustion engine subject to the provisions of 40 CFR Part 63 Subpart ZZZZ for Reciprocating Internal Combustion Engines. This engine burns diesel fuel only, and the sulfur content of the fuel is below the 1.0% allowed by weight at 18,000 btu/lb. The engine is equipped with an hour meter and was not in use during the time of the inspection. Records indicate the unit ran for 16 hours in 2023.

EUCATDIESEL12

This emission unit is a 2,000-kilowatt (kW) diesel-fueled emergency generator installed in 2012. This unit is subject to the provisions NSPS Subpart 40 CFR Part 60 Subpart IIII for Reciprocating Compression Ignition Internal Combustion Engines as well as 40 CFR Part 63 Subpart ZZZZ for Reciprocating Internal Combustion Engines. Compliance with Subpart ZZZZ is demonstrated via compliance with

Subpart IIII. This is a Certified engine, thus meeting the emission limits of 6.4 g/kW-hr for NMHC+ NOx, 3.5 g/kW-hr for CO, and 0.2 g/kW-hr for PM. The engine is equipped with an hour meter, and records indicate 20.8 hours of operation in the previous 12-month time period. The fuel used for this engine has a sulfur content of less than 0.0015 % by weight.

EUGUARDSHK_ENG

This emission unit is for one (1) natural gas internal combustion engine rated at 40 HP that is exempt from Rule 201 permitting under Rule 285(2)(g) but is subject to the provisions of 40 CFR Part 63 Subpart ZZZZ and 40 CFR Part 60 Subpart JJJJ. Compliance with 40 CFR Part 63 Subpart ZZZZ is demonstrated via compliance with 40 CFR Part 60 Subpart JJJJ. This is a Certified engine, and has emission limits of 10 g/hp-hr. for NOx+Hc and 387 g/hp-hr. for CO. JHC is properly tracking the hours of operation of this engine, and it is equipped with an hour meter. The engine operated for 9.3 hours in 2023 for non-emergency use.

FGBOILER12

This flexible group covers the common Compliance Assurance Monitoring (CAM) requirements for EUBOILER1 and EUBOILER2 pursuant to 40 CFR Part 64. These boilers exhaust through a common stack, however, each boiler has its own CEMS and COMS units.

Both units utilize separate continuous opacity monitoring system (COMS) that are used as the indicator for compliance with the PM limits. The PM emission limits are described in EUBOILER1 and EUBOILER2. JHC continually monitors the opacity of the units and conducts daily calibrations and maintenance for the monitors. JHC also does annual monitor audits. No CAM exceedances/excursions or monitor downtime have been reported.

FGMATS_U12

This flexible group houses the requirements of 40 CFR Part 63 Subpart UUUUU (Mercury and Air Toxics Standard or MATS) for Units 1 and 2.

The MATS requirements have emission limits of 0.030 lb/MMBTU for filterable PM, 0.0020 lb/MMBTU for HCl (both based upon stack testing), and 1.2 lb./TBTU, based upon a 30-day boiler operating day arithmetic average, for Mercury. Low Emitting EGU (LEE) status for any pollutant, except for mercury, requires the performance testing data to be less than 50% of the applicable standard.

In a letter dated July 11, 2019, Consumers Energy submitted an updated Notice of Compliance Status (NOCS) pursuant to the MATS rules for Boiler 1. In a letter dated August 8, 2019, Consumers Energy submitted an updated Notice of Compliance Status (NOCS) pursuant to the MATS rules for Boiler 2. These units have successfully completed the three (3) years of consecutive quarterly testing for PM and HCl, as required, and meets the LEE criteria as defined in 63.1005(h)(1)(i). Therefore, future stack testing is now required every three (3) years to demonstrate compliance with the MATS regulation.

The CO and NO_x tune-up of Units 1 and 2 was conducted on August 15, 2024. All notifications and reports have been submitted to both the AQD and to CEDRI, as

required. No emergency bypass has been used for either unit; there also has not been any deviations from work practice standards.

Unit 1 reaffirmed LEE status on May 18, 2022, by performing a triennial PM & HCl test. Unit 2 reaffirmed LEE status on May 16, 2022.

In the first 6-months of 2024, Unit 1 burned 216,927 tons of western coal and 35,168 gallons of No. 2 fuel oil. Unit 2 burned 13,231 tons of bituminous coal, 120,613 tons of western coal and 159,051 gallons of No. 2 fuel oil.

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Result
Filterable PM (per boiler)	0.030 lb/MMBTU*	Quarterly or Triennial Stack Test+	EUBOILER1 EUBOILER2	0.0006 lb/MMBTU 0.0011 lb/MMBTU
Hydrogen chloride (HCl) (per boiler)	0.0020 lb/MMBTU*	Quarterly or Triennial Stack Test+	EUBOILER1 EUBOILER2	<0.00004 lb/MMBTU 0.00005 lb/MMBTU
Mercury (Hg) (per boiler)	1.2 lb/TBTU*	30-boiler operating day rolling arithmetic average updated at the end of each new boiler operating day	EUBOILER1 EUBOILER2	0.777 lb/TBTU 0.814 lb/TBTU

FGMATS_U3

This flexible group covers the requirements of 40 CFR Part 63 Subpart UUUUU (Mercury and Air Toxics Standard or MATS) for Unit 3. Unit 3 relies on the use of a Continuous Emission Monitoring System (CEMS) to demonstrate compliance with the emission limits for PM, SO2, and Hg.

The CO and NO_x tune-up of Unit 3 was conducted on January 18, 2023. No emergency bypass has been used, and there have been no deviations from work practice standards. JHC is properly submitting the required semi-annual compliance reports.

In the first 6-months of 2024, Unit 3 burned 291,466 tons of western coal and 108,734 gallons of No. 2 fuel oil.

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Result
Filterable PM (per boiler)	0.030 lb/MMBTU*	30-boiler operating day rolling arithmetic average updated at the end of each new boiler operating day RCA RRA ACA	EUBOILER3	0.001 lb/MMBTU Pass Pass Pass
Mercury (Hg) (per boiler)	1.2 lb/TBTU*	30-boiler operating day rolling arithmetic average updated at the end of each new boiler operating day	EUBOILER	0.709 lb/TBTU

FGEXISTINGRICE

This flexible group is comprised of four (4) diesel fired emergency reciprocating internal combustion engines that are subject to the provisions of 40 CFR Part 63 Subpart ZZZZ for reciprocating internal combustion engines. All engines burn ultra-low sulfur diesel fuel, that has a maximum sulfur content of 0.0015% by weight. Each of the units is equipped with an hour meter, and hours of operation are properly being tracked. JHC is properly complying with all provisions of ZZZZ, including conducting all inspections and changing the oil and filters.

Year	Unit 1 & 2			Unit 3
	FGEXISTINGRICE	FGEXISTINGRICE	FGEXISTINGRICE	FGEXISTINGRICE
	EUHPHSWP15001	EUHPHSWP15002	EUHPHSWP3000	EUCATFIREPUMP3

	Screenhouse, Middle	Screenhouse, North	Screenhouse, South	Screenhouse
	HP House Service Water Pump #1 1500 GPM Diesel Engine (S/N 332675)	HP House Service Water Pump #2 1500 GPM Diesel Engine (S/N 335046)	HP House Service Water Pump 3000 GPM Diesel Engine (S/N 6A-465014)	350 HP Caterpillar 3406 Fire Pump (6TB19741)
2023 hours	3.7	9.3	4.6	11.4

FGNEWCIRICE

This flexible group covers two (2) compression ignition reciprocating internal combustion engines; EUWPDIESEL, EUTRNCNTRDIESEL. Both of these engines are diesel fired. Both of these engines are subject to the NSPS provisions of 40 CFR Part 60 Subpart IIII and to the MACT standard 40 CFR Part 63, Subpart ZZZZ. Compliance with the requirements of 40 CFR Part 63 Subpart ZZZZ are demonstrated through compliance with 40 CFR Part 60 Subpart IIII.

One of the engines, EUWPDIESEL is a 130 Horsepower (HP) emergency water pump for fire suppression that is certified to the Tier 3 requirements. Since this is a certified engine, it is compliant with the NMHC+ NOx limit of 4.0 g/kW-hr, CO limit of 5.0 g/kW-hr, and the PM limit of 0.30 g/kW-hr. The other emission unit, EUTRNCNTRDIESL, is an emergency generator at the training center, rated at 1,193 bhp. This emission unit, while also certified, has slightly different emission limits at 6.4 g/kW-hr for NMHC+NOx, 3.5 g/kW for CO and 0.2 g/kW-hr.

Fuel records indicate both engines are compliant with the maximum sulfur content of less than 15 ppm by weight and a minimum cetane index of 40 or a maximum aromatic content of 35 % by volume. The engines are equipped with an hour meter, and EUWPDIESEL operated for 0.2 hours during the previous 12-month time period. EUTRNCNTRDIESL, ran for 4 hours during the previous 12-month time period.

FGAUXBLRS3

There are two (2) 9.8 MMBtu distillate oil fired boilers that provide heat to building 3 in this flexible group. The boilers are used primarily for comfort heat. These boilers are exempt from rule 201 permitting under Rule 282(2)(b)(ii) but are subject to the provisions of 40 CFR Part 63 Subpart DDDDD. The boilers burn fuel oil with a sulfur content of less than 0.4% by weight, at 18,000 btu/lb. All required notifications have been submitted, and tune-ups completed. The most recent tune-ups were conducted on September 8, 2022 and September 22, 2022. The tune ups included inspections of the burners, flame pattern, air-to fuel ration control system, changing out a motor, and others. The tune-up also certifies that the boiler is complying with all provisions of 40 CFR Part 63, Subpart DDDDD.

FGPARTSCLEANERS

This flexible group covers all existing or future cold cleaners exempt from Rule 201 permitting under Rules 281(2)(h) and 285(2)(r)(iv). The facility has identified that they currently operate 16 parts washers.

SUMMARY

J.H. Campbell was in compliance at the time of the inspection.

NAME April Lazzaro DATE 09/30/2024 SUPERVISOR HH