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

B283526276

FACILITY: J. H. Campbell Plant		**SRN / ID:** B2835
LOCATION: 17000 Croswell, WEST OLIVE		**DISTRICT:** Grand Rapids
CITY: WEST OLIVE		**COUNTY:** OTTAWA
CONTACT: JOE FIRLIT , AQD CONTACT		**ACTIVITY DATE:** 08/06/2014
STAFF: Steve Lachance	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MAJOR
SUBJECT: On-site inspection for FY '014 FCE (See CA_B283526276, 8/7/13)		
RESOLVED COMPLAINTS:		

On August 6, 2014, SL conducted a scheduled inspection of the Consumers Energy, JH Campbell coal-fired electricity generation facility located at 17000 Croswell, Port Sheldon, Michigan. The purpose of the AQD inspection was to determine the facility's compliance with Renewable Operating Permit (ROP) No. MI-ROP-B2835-2013 and Permit to Install (PTI) No. 141-12 (for a new emergency diesel generator for Units 1 and 2.) The facility was represented by Mr. Joe Firlit (Site Contact for AQD) and Ms. Katie Cunningham (Consumers/Jackson Office; Single Point of Contact "SPoC" for this facility) throughout the inspection. Various other Consumers Energy technical representatives and operators also participated at certain points in the inspection.

Source Description and Regulatory Summary

The facility is an electricity generating station, where pulverized coal is the primary fuel. Three units, No's. 1, 2 and 3, are in use, producing approximately 1,450 megawatts (net) per hour. The facility is located along the northern shore of Pigeon Lake, adjacent to Lake Michigan in Port Sheldon Township, Ottawa County. Although most of the land in the general area of the facility is lightly populated, dense developments of both seasonal and year-round homes are located immediately west of the facility (between the plant and Lake Michigan) and south of the facility across Pigeon Lake.

The three units were installed in 1958, 1963 and 1974. Boiler emissions are controlled through the use of blended western coal, flue gas conditioning systems (as necessary), electrostatic precipitators and low-NOx burners. Emissions of nitrogen oxides from Units 2 and 3 are controlled by a Selective Catalytic Reduction (SCR) systems; and the Unit 2 ESP has been removed and replaced with a Pulse Jet Fabric Filter (PJFF.) The facility has Continuous Emission Monitoring (CEM) Systems installed for gas flow, sulfur dioxide, carbon dioxide, nitrogen oxides and opacity for each unit..

The facility has been permitted to install additional pollution control equipment (fabric filters, carbon injection, spray drier absorbers) at each of the units. This work commenced in early 2011 and is continuing; current construction includes the Unit 1 PJFF and Unit 3 PJFF and SDA.

Other emission sources at the facility include a dry ash handling system; a wet bottom ash handling system; fuel handling equipment; back-up auxiliary boiler(s) and diesel generators; and cold parts cleaners.

Section 2 of the facility's application is comprised of a back-up, 233 mmBtu/hr distillate oil-fired combustion turbine which has been registered as "mothball status" to Midwest Independent System Operators as of August 2011.

Control of fugitive dust has historically been of interest to the community (although no complaints have been received this inspection year), and the facility has implemented a site-wide fugitive dust control program.

The stationary source is located in Ottawa County, which is currently designated by the U.S. Environmental Protection Agency (USEPA) as attainment/unclassified for all criteria pollutants.

The stationary source is subject to Title 40 of the Code of Federal Regulations (CFR), Part 70, because the potential to emit several criteria pollutants (NOx, SOx, CO, PM and VOC) exceeds 100 tons

per year and the potential to emit of any single HAP regulated by the federal Clean Air Act (HCl), Section 112, is equal to or more than10 tons per year and the potential to emit of all HAPs combined is more than 25 tons per year. Additionally, the potential to emit of Greenhouse Gases is 100,000 tons per year or more calculated as CO2e and 100 tons per year or more on a mass basis.

At the time of the original New Source Review permit issuance, the facility's Unit 3 was considered a major source in regards to Prevention of Significant Deterioration (PSD) (40 CFR 52) regulations since the facility has the potential to emit of several criteria pollutants exceeding 250 tons. As such, emission limits for Unit 3 were established pursuant to Best Available Control Technology (BACT). Other units at the stationary source were not subject to PSD regulations because the process equipment was constructed/installed prior to the promulgation of the PSD regulations.

As part of pollution control and energy enhancement projects for Unit 3, the stationary source previously accepted legally enforceable permit conditions limiting the potential to emit of particulate matter, sulfur dioxide and oxides of nitrogen to below "major modification" levels. The stationary source has reporting requirements to demonstrate that no significant increase in net emissions has occurred as a result of these projects. The monitoring period for the reporting ended in May of 2012.

Recent permitting of air pollution control equipment for each of the boilers (Permit to Install No. 179-10) involved a hybrid test under PSD per Rule 1802(4)(e) to demonstrate that the project will not cause a significant emissions increase, and therefore, PSD was not triggered by this project. Consumers Energy pursued state permitting for the material handling equipment and to memorialize the non-PSD determination for the boilers.

At this time, there are no GHG applicable requirements to include in the ROP. The mandatory Greenhouse Gas Reporting Rule under 40 CFR 98 is not an ROP applicable requirement and is not included in the ROP.

The facility's Unit 3 is subject to the New Source Performance Standards (NSPS) for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971 (NSPS; 40 CFR 60, Subparts A and D). Monitoring requirements for Sulfur Dioxide from this unit pursuant to 40 CFR 60, Subpart D are addressed through compliance with certification of Continuous Emissions Monitoring Systems (CEMS) per Title IV (Acid Rain), 40 CFR Part 75 regulations.

Two "granulator" coal crushers were installed in the Breaker House in 2006. These pieces of equipment crush and re-size the coal for use further down the coal handling equipment line. Installation of the crushers on these systems triggered applicability of NSPS, Subpart Y (Standards of Performance for Coal Preparation and Processing Plants) for portions of the coal handling systems. This is based on date (after 1974); size (these coal systems handle >200 tons per day coal); and installation of a named affected facility (coal crusher). Required notifications and opacity tests (dust collectors 4, 5, 6, 7 and 9) have been completed; no visible emissions were noted during the initial performance tests and no further compliance testing is required based on the regulation at the time of applicability.

The facility is using CEMS to demonstrate compliance with Rule 401 emission limits for sulfur-bearing compounds for Units 1 and 2. Unit 3 is subject to the more stringent SO2 emissions standards of 40 CFR 60, Subpart D; as noted above, CEMS are also utilized to demonstrate compliance with these emissions standards.

The facility is subject to the Acid Rain (Title IV) provisions of the Clean Air Act of 1990, as amended.

Each of the coal-fired boilers (Units 1, 2 and 3) are regulated by Michigan's Part 8 Rules ("Emission Limitations and Prohibitions – Oxides of Nitrogen"). Each is also subject to the Clean Air Interstate Rule (CAIR) NO_x annual trading program pursuant to Rules 802a, 803, 821, and 830 through 834; to the CAIR NO_x ozone season trading program pursuant to Rules 802a, 803 and 821 through 826; and to the CAIR SO_2 annual trading program pursuant to Rule 420. Note, CAIR requirements stand until the remanded Cross State Air Pollution Rule (CSAPR) is legally finalized.

Each of the coal-fired boilers (Units 1, 2 and 3) are regulated by Michigan's Part 15 Rules ("Emission Limitations and Prohibitions – Mercury"). The boilers are also defined as Electric Generating Units (EGUs) for the purposes of the federal Mercury and Air Toxics Standards (MATS); Michigan's Part 15 Rules will be rescinded upon finalization of equivalent or more stringent federal standards for mercury

emissions.

The facility's cold cleaners are currently not subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) for halogenated solvent cleaning operations, 40 CFR 63, Subpart T.

The diesel-powered reciprocating internal combustion engines (RICE) are used as a source of emergency backup power or water supply and FGEXISTINGRICE are subject to the National Emission Standards for Hazardous Air Pollutants from Stationary RICE, 40 CFR 63, Subpart ZZZZ. All units qualify as "emergency use" RICE, however while all other RICE will be subject to work practice standards, compliance reporting and recordkeeping as of May 3, 2013, EUCAT3DIESEL does not have to meet the requirements of this subpart. All RICE may be subject to initial notification and specific work practice requirements upon reconstruction of a unit. The facility is also required by the NESHAP to maintain records of the applicability determination for these units.

Auxiliary boilers for the coal-fired units (EUAUXBLRS12 and EUAUXBLR3b, EUAUXBLR3c) at the stationary source are subject to the Maximum Achievable Control Technology (MACT) standards under the National Emission Standard for Hazardous Air Pollutants for Major Sources for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR Part 63, Subpart DDDDD. Only EUAUXBLRS12 has emission limits per this rule; final compliance date is in 2016.

As an existing source, the stationary combustion turbine (EUCOMBTURB) in Section 2 is subject to the National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines, 40 CFR 63, Subpart YYYY, but does not have any applicable requirements The turbine would have requirements if it were to be modified.

The stationary source is subject to the federal Compliance Assurance Monitoring (CAM) rule (40 CFR 64) because EUCOALHAND, EUBOILER1, EUBOILER2, and EUBOILER3 have both control devices and potential pre-control emissions of particulate greater than the major source threshold level. In addition, post-control emissions of particulate from EUBOILER1, EUBOILER2 and EUBOILER3 are over the major source threshold level. Each particulate control device is monitored; baghouse filters for material handling control points are assessed for visible emissions, and boiler electrostatic precipitators/fabric filters (ESPs/FFs) are continuously monitored for opacity using Continuous Opacity Monitoring Systems. CAM requirements are included in this ROP.

The emissions limitations or standards for SO2 and NOx from EUBOILER3 at the stationary source are exempt from the federal Compliance Assurance Monitoring (CAM) regulation under 40 CFR, Part 64, because these are addressed by NSPS per 40 CFR Part 60, Subpart Da. Therefore, EUBOILER3 is exempt from CAM for SO2 and NOx.

Furthermore, the emissions limitations or standards for SO2 and NOx from each boiler at the stationary source (EUBOILER1, EUBOILER2, and EUBOILER3) are exempt from the federal Compliance Assurance Monitoring (CAM) regulation under 40 CFR Part 64, because these meet the CAM exemption for Acid Rain monitoring requirements. Therefore, EUBOILER1, EUBOILER2 and EUBOILER3 are exempt from CAM for SO2 and NOx.

COMPLIANCE EVALUATION

The Renewable Operating Permit (MI-ROP-B2835-2013; for which a citizens' petition was filed to EPA, but which EPA has not yet apparently acted upon) contains tables of applicable requirements for the following emission units and flexible groups: (Section 1); EUASHNEW; EUBOILER1; EUBOILER2; EUBOILER3; EUCOALHAND; EULIMEPREP; EUSDAMAT1&2; EUSDAMAT3; EUBYPRODUCT; EUAUXBLRS12; EUCAT3DIESEL; FGBOILER12 (consisting of common applicable requirements for EGBOILER1 and EGBOILER2); FGEXISTINGRICE for multiple internal combustion engines used for emergency power; FGPARTSCLEANERS for multiple cold cleaners; FGAUXBLRS3 for Boiler MACT requirements for two small, gas-fired boilers; and (Section 2); EUCOMBTURB. The facility is also subject to a source-wide fugitive dust control strategy, and the requirements of PTI No. 141-12 for a new emergency diesel gen-set (installed after the current ROP was "draft" and available for public comment).

The field portions of the evaluation were primarily completed on August 6, 2014. Weather conditions were clear, about 65-70 F, with easterly winds at about 10-15 mph. Visible emissions from the main boiler stack emission points were estimated prior to arriving on-site at about 9:00 AM as " no visible emissions". Note also that SL was on-site during Unit 3 stack testing the day before; and no visible emissions were observed from the Unit 3 stack during the testing period.

The inspection commenced with an entrance meeting with Ms. Cunningham and Mr. Firlit, as well as various managers and technical assistants, including:

- Ms. Staci Lefurge (Environmental Manager for the facility)
- Mr. Steve Boyink (Unit 3 "Owner")
- Mr. Bob Van Ells (Units 1 and 2 "Owner")
- Mr. Lee S. (Fuel Handling)
- Mr. John Ollie (Unit 3 CEMS)
- Mr. Mike Rabideau (Units 1 and 2 CEMS)
- Mr. John Ollie (Unit 3 CEMS)

SL announced his intention to complete an inspection on this date; the inspection findings would include a review of all required, submitted reports and previous site activities since the last complete inspection (June 2013). SL shared and distributed the DEQ's "Environmental Rights and Responsibilities" brochure. SL requested certain CEMS records (including current CEMS calibration reports for 8/5 and 8/6/14, and Daily/General Emissions Reports for 8/5/14. See Attachments 1 through 3; no issues noted there-in. SL also declared his intention to view certain equipment and review certain specific records required in support of the ROP. See specific discussions below for each regulated unit.

Specific points discussed during this entrance meeting included:

- No known technical/operational issues on this date. Unit 1 was starting up from a short outage to address a tube leak. Startup was reportedly proceeding smoothly; and note, per above, visible emissions were not an issue at this time.
- This was the first startup with new, modified Fire Protection Procedures to protect the ESP.
- Prior to this, Units 1 and 2 had operated continuously for 160 days and 441 days, respectively.
- Unit 2 is reportedly running well on 60% western coal. This unit is equipped with a Pulse Jet Fabric Filter (PJFF) and SCR (installed and on-line). The ESP has been physically removed.
- Units 1 and 3 operate on 100% western coal.
- Coal inventories are low; rail distribution is stressed (nationally.) Much of the fueling is currently directly from the train(s) to the unit(s).
- The requested CEMS calibrations for this date were received with no issues. Any CEMS observations for the day should be valid. See Attachment 1.
- Other requested reports were provided; no emissions issues for the reporting periods. See specific discussions, below. See Attachments 2 and 3 .
- There have been no recent complaints and Ms. Lefurge attended the recent Mt. Beach Association meeting.
- Current construction includes Unit 1 PJFF; and Unit 3 PJFF, SDA, associated material handling equipment, etc.
- SL notes here that Consumers is in very late negotiations with US EPA to formalize an agreement on future control strategies, which would in fact address allegations of any past permitting requirements. This agreement should be finalized in 2014 and Ms. Kate Ross is the Consumer-AQD contact for that agreement.
- Sulfur-in-oil results from 2009's sample indicate compliance. The facility continues to specify (compliant) Ultra-Low Sulfur Diesel (ULSD) fuel at 15 ppm Sulfur or less.
- The facility received approval for extending compliance with 40 CFR 63, Subpart UUUUU (EGU MACT) for Units 1, 2 and 3 until April, 2016.

"SECTION 1" REQUIREMENTS

EUASHNEW

This table outlines the applicable requirements for the "new" dry ash storage and handling equipment. Specific points on the ash handling lines are controlled with pulse jet baghouses. Ash is ultimately sold for use in asphalt/concrete products or landfilled on Consumers' property across Lakeshore Drive.

Compliance with the particulate matter limits has been demonstrated through the monitoring of baghouse performance as required by the RO Permit's "Monitoring and Malfunction Abatement Plan for Dry Fly Ash Collection Systems" and CAM Plan. These plans and records were readily available.

***** operational parameters*****

The daily inspections required by the "JH Campbell Complex Fugitive Dust Control Program" and associated records were readily available.

***** design parameters*****

The equipment is designed as required by the RO Permit. There have been no known design changes to this equipment.

***** monitoring/recordkeeping*****

As noted above, records for the required inspections were available, and no additional issues were identified.

***** testing/recordkeeping/reporting*****

No emissions testing of this equipment has been specified, and no specific issues have been identified.

EUBOILER1

This table outlines the applicable requirements for Boiler 1. Emissions are controlled by an electrostatic precipitator (ESP)), sulfur trioxide flue gas conditioning, and low-NOx burners. (Note, however, that SO3 flue gas conditioning is no longer necessary or used due to current (100% western) coal usage.) A PJFF is currently under construction. Other requirements are also examined below in FGBOILER12.

Back at the office, SL received and reviewed the CEMS/COMS/calibration records that had been requested. These included:

- Current Daily/General Average Report for August 5, 2014; and
- CEMS Daily Calibration Reports for August 5 and 6, 2014. See Attachments 1 and 2.

No issues were noted; these indicate compliance for the time periods requested, and calibration information supports the validity of the values observed on this date.

***** material usage/emission limits*****

Compliance with the particulate matter and opacity limits is based on proper operation and maintenance of the equipment, in conjunction with information provided by the CEMS and COMs. See below, as well as FGBOILERS1&2. At the time of the inspection (approximately 12:45 PM), the following information was obtained from the Unit 1 Control Room:

- Opacity = 19% (and limiting output)

- 130 net MW; continued startup, per discussion above
- 100% western coal
- The current NOx emission rate was 0.16 pound per mmBtu heat input.

The sulfur trioxide flue gas conditioning system was not in use at the time of the inspection. Per the operator, the system is not necessary at the current fuel mix.

***** process/operational parameters*****

Based on the above observations, in conjunction with CEMS and COMS information, both the sulfur flue gas conditioning system and the PM control devices appear to be utilized properly, given the opacity history of the unit.

***** design parameters*****

There have been no recent changes to these requirements or to the affected/regulated equipment.

***** testing*****

Emissions testing for particulate matter was completed in Fall, 2011 in accordance with AQD requirements. The results indicate emissions of about 0.0044 lb particulate matter per 1,000 pounds of exhaust gas, corrected to 50% excess air (Boilers 1 and 2 combined; this is about 3% of the allowable limit.) The next compliance test is scheduled for Fall 2014.

***** monitoring/recordkeeping*****

As noted above, the following information was requested and received; current Daily/General Average Report for August 5, 2014; and CEMS Daily Calibration Reports for August 5-6, 2014. See Attachments 1 and 2. No issues were noted for these periods; and each quarterly report is reviewed by AQD.

The CAM Plan for this unit utilizes the existing COMS system, and so is fully implemented.

*****stack/vent*****

There have been no changes to the unit's stack, which was apparently and reportedly constructed to the permit specifications.

*****other*****

The unit is subject to Acid Rain and NOx Budget permitting/CAIR programs. Acid Rain compliance demonstrations are reported directly to U.S. EPA on a quarterly basis.

While the boiler is regulated by Michigan's Part 8 Rules ("Emission Limitations and Prohibitions – Oxides of Nitrogen") and the applicable requirements are included in a NOx Budget Trading Permit, attached to the Renewable Operating Permit as Appendix 1-10, this permit is in effect superceded by current permits required by the Clean Air Interstate Rule (CAIR; 40 CFR Part 96, as implemented through Rules 420 and 821). The final Cross-State Air Pollution Control Rule may require additional future permitting action, but this rule has been recently vacated and remanded back to EPA; so CAIR permits are still in effect.

EUBOILER2

This table outlines the applicable requirements for the Boiler 2. Emissions are controlled by a new PJFF, replacing the existing ESP, sulfur trioxide flue gas conditioning, low-NOx burners, and Selective Catalytic Reduction (SCR) system. The SO3 system was not in use at this time.

SL received and reviewed the CEMS/COMS/calibration records that had been requested. These included:

- Current Daily/General Average Report for August 5, 2014; and
- CEMS Daily Calibration Reports for Auguist 5 and 6, 2014. See Attachments 1 and 2.

No issues were noted; these indicate compliance for the time periods requested, and calibration information supports the validity of the values observed in each control room on this date.

***** material usage/emission limits*****

Compliance with the particulate matter and opacity limits is based on proper operation and maintenance of the equipment, in conjunction with information provided by the CEMS and COMs. See below, as well as FGBOILERS1&2. At the time of the inspection (about 1 PM), the following information was obtained from the Unit 2 Control Room:

- Opacity = 15%
- 327 gross MW
- 307 net MW
- 60% western coal
- The pulse jet fabric filter has 10 isolatable chambers and operates in continuous cycle mode. "Delta P" was about 7" over-all, and each cell is equipped with particle (bag leak) detectors. Inlet and outlet temps were within a few degrees (284 F +/-) and so there's no indication of leakage/air infiltration.
- SCR monitoring indicated < 1 ppm NH3 slip (per calculation); 33 ppm NOx (outlet) and 182 ppm NOx (intlet.) This represents about 82% NOx reduction.

The current NOx emission rate was 0.054 pound per mmBtu heat input.

The sulfur trioxide flue gas conditioning system is reportedly no longer used.

***** process/operational parameters*****

Based on reported CEMS and COMS results, both the sulfur flue gas conditioning system and the PM control equipment appear to be utilized properly, given the opacity history of the unit.

***** design parameters*****

There have been no recent changes to these requirements or to the affected/regulated equipment.

***** testing*****

Emissions testing for particulate matter was completed in Fall, 2011 in accordance with AQD requirements. The results indicate emissions of about 0.0044 lb particulate matter per 1,000 pounds of exhaust gas, corrected to 50% excess air (Boilers 1 and 2 combined; this is about 3% of the allowable limit.) The next compliance test is scheduled for Fall 2014.

***** monitoring/recordkeeping*****

The required records for sulfur trioxide flue gas conditioning were available, and no issues were identified. The CAM Plan for this unit utilizes the existing COMS system, and so is fully implemented.

As noted above per Unit 1, the requested information was received; See Attachments 1 and 2.

No issues were noted; these indicate compliance for the time periods requested, and calibration information supports the validity of the values observed for this date.

*****stack/vent*****

There have been no changes to the unit's stack, which was apparently and reportedly constructed to the permit specifications.

*****other*****

The unit is subject to Acid Rain and NOx Budget permitting/CAIR programs. Acid Rain compliance demonstrations are reported directly to U.S. EPA on a quarterly basis.

While the boiler is regulated by Michigan's Part 8 Rules ("Emission Limitations and Prohibitions – Oxides of Nitrogen") and the applicable requirements are included in a NOx Budget Trading Permit, attached to the Renewable Operating Permit as Appendix 1-10, this permit is in effect superceded by current permits required by the Clean Air Interstate Rule (CAIR; 40 CFR Part 96, as implemented through Rules 420 and 821). The final Cross-State Air Pollution Control Rule may require additional future permitting action, but this rule has been recently vacated/remanded back to EPA, and so CAIR requirements are still in effect.

EUBOILER3

This table outlines the applicable requirements for the Boiler 3. Emissions are controlled by electrostatic precipitators (ESPs; two in series), low-NOx burners, and a Selective Catalytic Reduction (SCR) unit. PJFF and SDA controls are currently being installed.

SL received and reviewed the CEMS/COMS/calibration records that had been requested. These included:

- Current Daily/General Average Report for August 5, 2014 and
- CEMS Daily Calibration Reports for August 5 and 6, 2014. See Attachments 1 and 3.

No issues were noted; these indicate compliance for the time periods requested, and calibration information supports the validity of the values for this date.

***** material usage/emission limits*****

Compliance with the particulate matter and opacity limits is based on proper operation and maintenance of the equipment, in conjunction with information provided by the most recent stack test and COMs. Compliance with the NOx and SO2 limits is based on information supplied by the CEMS. At the time of the inspection (about 11:15 AM), the following information was obtained from the Unit 3 Control Room:

- Opacity = 5%
- about 0.054 #NOx/mmBtu; about 80% reduction

- Ammonia slip 1 ppm (per calculation)
- 0.53 #SO2/mmBtu
- Approximately 790 MW net
- 100% western coal
- Sulfur injection rate = 0 pph

process/operational restrictions

The overall acceptable evaluation of the electrostatic precipitator is based on the opacity levels recorded.

*** design parameters***

There have been no recent changes to these requirements or to the affected/regulated equipment.

testing

Emissions testing for particulate matter was completed in 2011 in accordance with AQD requirements. The results indicate emissions of about 0.0050 lb particulate matter per 1,000 pounds of exhaust gas, corrected to 50% excess air (this is about 5% of the allowable limit.)

SL was on-site and observed PM testing of this unit on 8/5/14; all proceeded normally and preliminary results indicate compliance with the applicable PM limit.

*** monitoring/recordkeeping***

All required records for CEMS, COMS, and ESP were available, and no issues were identified. See Attachments 1 and 3. No issues were noted for these periods; and each quarterly report is reviewed by AQD.

SL requested that Mr. Ollie provide graphical depictions of emissions for the unity since July 1, 2014. See Attachment 4. SO2 emissions were always compliant and generally <1.0 #/mmBtu heat input. Opacity was generally less than 10%, with obvious calibration points at about 13%; but also with an apparent event (opacity briefly above 40%) on 7/9/14. In fact, this turned out to be the annual COMS Audit, and the data is flagged as Invalid/Maintenance. This data was readily available and easy to use and diagnose apparent incidents.

CAM for this unit is the existing COMS; and so CAM is fully implemented.

*** reporting***

The facility has completed and submitted all necessary quarterly excess emissions and CEMS performance reports, as well as QA/QC documentation required for the CEMS based on Part 75 requirements.

stack/vent

There have been no changes to the unit's stack, which was apparently and reportedly constructed to the permit specifications.

other

The unit is subject to Acid Rain and NOx Budget permitting/CAIR programs. Acid Rain compliance demonstrations are reported directly to U.S. EPA on a quarterly basis.

While the boiler is regulated by Michigan's Part 8 Rules ("Emission Limitations and Prohibitions – Oxides of Nitrogen") and the applicable requirements are included in a NOx Budget Trading Permit, attached to the Renewable Operating Permit as Appendix 1-10, this permit is in effect superceded by current permits required by the Clean Air Interstate Rule (CAIR; 40 CFR Part 96, as implemented through Rules 420 and 821). The final Cross-State Air Pollution Control Rule may require additional future permitting action, but this rule has been recently vacated/remanded back to EPA.

EUCOALHAND

This table outlines the applicable requirements for the coal handling equipment. Specific points on the coal handling lines are controlled with pulse jet baghouses. Enclosures and wet dust suppression are also utilized.

No visible emissions were observed to be leaving the immediate vicinity of any coal handling activities.

*** material usage/emission limits***

Compliance with the particulate matter limits has been demonstrated through the monitoring of baghouse performance as required by the RO Permit's "JH Campbell Complex Fugitive Dust Control Program" and CAM. No specific emissions testing of this equipment has been required.

*** design parameters***

The equipment is designed as required by the RO Permit and the fugitive dust control program required there-in. Each of the baghouses is equipped with a pressure differential gauge; particle detectors; and a CO detector (due to the fire risk associated with the handling of western coal.)

*** monitoring/recordkeeping***

CAM specifies "no visible emissions" and differential pressure ranges between 1 and 7 inches of water pressure. The recent modification to the permit was designed to clarify the meaning of excursion for this equipment, which is now defined specifically with respect to visible emissions only. So as above, a low differential pressure or particle detector alarm is not specifically actionable through CAM as an excursion. Each of these conditions warrants continued site monitoring and documented action, however.

EULIMEPREP, EUSDAMAT1&2, EUSDAMAT3, EUBYPRODUCT

This permitted equipment is in various stages of construction/installation/completion/availability, but none was in use at the time of the inspection. All is scheduled for availability by the MATS deadline of mid-April 2016.

EUAUXBLRS12

This table outlines requirements for the facility's Unit 1&2 auxiliary boiler. The equipment was not in use at the time of the inspection. All required records were available; the facility specifies Ultra-Low Sulfur Diesel (ULSD) No. 2 fuel oil, with a maximum sulfur content of 15 ppm by weight.

The facility reportedly uses a single supply of fuel oil for all on-site stationary equipment. During the FY2008 inspection, SL obtained a sample of this fuel oil from the Unit 1 and 2 complex, which was submitted to the MDEQ Laboratory for analysis of sulfur content and heating value. Results of this analysis (0.06% S) indicated compliance for other on-site units with sulfur-in-fuel requirements. All fuel oil deliveries since that time have been ULSD, and so the %S of on-site fuel oil should be less than the FY2008 test result.

EUCAT3DIESEL

This existing RICE was not in use at the time of the inspection. See FGEXISTINGRICE, below.

FGPARTSCLEANERS

This table contains the requirements for any future, new cold cleaner that is exempt from NSR permitting by R 336.1281(h) or R 336.1285 (r)(iv). There are no reported changes from the previous years; each appears to be a compliant solvent per Part 7 requirements. SL observed one unit to be "closed" while not in operation, with operating instructions posted, during on-site stack tests observations on August 5, 2014.

FGEXISTINGRICE

This table outlines requirements which are common to the facility's diesel-fired internal combustion engines. The largest engine is has a capacity of about 9.3 mmBtu/hr heat input. None were in use at the time of the inspection. All required records were available; the facility uses ULSD No. 2 fuel oil, with a specified maximum sulfur content of 0.0015% by weight. The aforementioned oil purchase specifications and sample results were used to assess compliance with applicable sulfur requirements. Certain of these engines are subject to the Reciprocating Internal Combustion Engine (RICE) MACT, and these requirements are included in the proposed renewal ROP.

FGBOILER12

This table outlines requirements which are common to both EUBOILER1 and EUBOILER2.

***** monitoring/recordkeeping*****

Each of the required CEMS/COMS was in place and functioning. As noted above, a variety of information was requested and received; no issues were noted for these periods; and each quarterly report is reviewed by AQD. No compliance issues were identified for these boilers as a result of the review of this information.

SL requested that Mr. Rabideau provide graphical depictions of emissions for the units since July 1, 2014. See Attachment 5. SO2 emissions were always compliant and generally <1.2 #/mmBtu heat input. Opacity was generally less than 15%; but also with an apparent event (opacity briefly above 35%) on 7/30/14. In fact, this turned out to be the controlled shut-down of Unit 1 for a small tube leak. (The unit was currently being re-started from this outage.) This data was readily available and easy to use and diagnose apparent incidents.

***** reporting*****

The facility has completed and submitted all necessary quarterly excess emissions and CEMS performance reports, as well as QA/QC documentation required for the CEMS based on Part 75 requirements.

FGAUXBLRS3

These small (<10 mmBtu/hr maximum heat input), natural gas-fired boilers were not operating or specifically observed during the inspection. They are subject to Boiler MACT (DDDDD) requirements, but without emission limits. Compliance date for this rule is mid-April, 2016.

"SECTION 2" REQUIREMENTS

EGCOMBTURB

This large (about 20 MW; 233 mmBtu/hr), oil-fired stationary combustion turbine was not in use at the time of the inspection.

Note, as an existing turbine, this unit is not subject to requirements of 40 CFR 63, Subpart YYYY until the existing unit is modified or reconstructed.

Further note that this unit is in "mothballed" status with the grid operator since Fall 2011. Since the unit is not Acid Rain-subject, this "mothballing" has not been formalized with EPA/per CAA requirements, since those specific notification requirements are not applicable to this unit.

PTI 141-12 for a diesel gen-set; EUCATDIESEL12

This new equipment was not in use at the time of the inspection, but was reviewed. The required hour meter was in place, and this equipment operates on ULSD. Testing is not required per RICE MACT/NSPS; this is an EPA-certified engine. See Attachment 6. This permit will be incorporated into the existing ROP as an off-permit change upon permit renewal. Attachment 6 also includes an emissions certification for a small new engine/gen-set for the Training Center.

EVALUATION SUMMARY

As discussed with Ms. Cunningham and Mr. Firlit at the conclusion of the site visit; and incorporating complete review of records received as discussed above, SL considers the facility to be in compliance with applicable air use rules, regulations and requirements at the time of the completion of this evaluation.

ATTACHMENTS

1. **Calibration Detail Reports for Each Unit; 8/5 and6/2014**
2. **Opacity Matrix and Average Data Reports for Units 1 and 2; 8/5/14**
3. **Opacity Matrix and Average Data Reports for Unit 3; 8/5/14**
4. **Unit 3 Graphical Emissions since July 1, 2014**
5. **Units 1 and 2 Graphical Emissions since July 1, 2014**
6. **EPA Engine Certifications**

NAME  DATE 8-12-14 SUPERVISOR