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DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

FCE Summary Report

Facility : AEP COOK NUCLEAR PLANT	SRN : B4252
Location : ONE COOK PLACE	District : Kalamazoo
	County : BERRIEN
City : BRIDGMAN State: MI Zip Code : 49106	Compliance Status : Compliance
Source Class : MAJOR	Staff : Matthew Deskins
FCE Begin Date : 7/31/2018	FCE Completion Date : 7/31/2019
Comments :	

List of Partial Compliance Evaluations :

Activity Date	Activity Type	Compliance Status	Comments
07/31/2019	Scheduled Inspection	Compliance	Due to Security Reasons, this had to be an Announced Scheduled Inspection.
07/29/2019	ROP Semi 1 Cert	Compliance	The facility certified that no deviations occurred during the reporting period.
05/09/2019	MAERS	Compliance	
03/21/2019	ROP SEMI 2 CERT	Compliance	The facility certified that no deviations occurred during the reporting period.
03/21/2019	ROP Annual Cert	Compliance	The facility certified that no deviations occurred during the reporting period.
08/17/2018	ROP Semi 1 Cert	Compliance	The ROP was issued on March 15, 2018 and the facility certified that no deviations occurred during the reporting period.

Name: Matt Dahl Date: 8-6-19 Supervisor: RIL 8/7/19
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DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection

B425249780

FACILITY: AEP COOK NUCLEAR PLANT		SRN / ID: B4252
LOCATION: ONE COOK PLACE, BRIDGMAN		DISTRICT: Kalamazoo
CITY: BRIDGMAN		COUNTY: BERRIEN
CONTACT: Blair Zordell, Senior Environmental Specialist		ACTIVITY DATE: 07/31/2019
STAFF: Matthew Deskins	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Due to Security Reasons, this had to be an Announced Scheduled Inspection.		
RESOLVED COMPLAINTS:		

On July 31, 2019 AQD staff (Matt Deskins and Rachel Benaway) went to conduct an announced scheduled inspection of the AEP Cook Nuclear Plant (AEP) located in Bridgman, Berrien County. The inspection had to be announced due to security protocol and staff set up the date and time with Blair Zordell who is one of the plants environmental personnel. AEP currently has two nuclear reactors that they started constructing in March of 1969 and Reactor #1 went on line in 1975 and Reactor #2 in 1978. Reactor #1 is capable of producing 1,048 megawatts of electricity and Reactor #2 1,107 megawatts. AEP also has a small boiler and numerous emergency diesel fired generators. AEP had historically been a 208a registered facility which means they would certify annually that their actual emissions were at 50% or lower than major source thresholds. A few years ago a decision was made to rescind the rule regarding 208a registrations and facilities that were using it had to either prove they were a true minor source, apply for an Opt-Out Permit, or submit a Title V ROP Application within a year of the rule being rescinded. AEP made the decision to apply for a Title V permit because they didn't want any operational restrictions in case of an emergency and ROP No. MI-ROP-B4252-2018 was issued on March 15, 2018. The intent of the inspection was to determine the facilities compliance with the aforementioned ROP as well as any other state or federal air regulations. Staff departed for the facility at approximately 8:25 a.m.

AQD staff arrived at the plant entrance at approximately 9:40 a.m. The entrance is no longer guarded where in the past they would check your credentials and inspect your vehicle. Staff then proceeded past the shack and then to the parking area. Staff then proceeded to what used to be the entrance and things appeared to be different. Staff then asked an employee and they mentioned that there was a new security entrance building and pointed staff how to get their and where the phones would be located. Staff proceeded to this new entrance and called Blair to let them know that they had arrived. Blair said he would come to get staff in a few minutes. After Blair arrived staff introduced themselves and then explained to him what our inspection would entail, what equipment staff would like to see, and then review the records required to be kept by their ROP. Staff then asked Blair to look at the ROP to make sure all equipment was the same and to also let him come up with a plan on the sequence of viewing the equipment. It was then decided that we would look at all equipment contained in the secure areas first, then look at records in Blair's Office after that, and then look at all the equipment in the non-secure areas last. Blair then made a call for someone to come over to process staff through the security checkpoints. While waiting for them to arrive, staff asked Blair some general questions about the facility. The following is what staff noted.

As mentioned earlier, the main facility operations revolve around the two nuclear reactors. The facility encompasses 650 acres with 35 acres making up facility operations. The facility uses Lake Michigan water for non-contact cooling water and they have 3 intakes and 2 discharge pipes. The facility employs approximately 900-950 AEP workers, 500 contract workers, and will have upwards of 3,000 workers altogether during any facility shutdowns. Staff asked about the educational center and if it has now been re-opened. Note: During staff's previous inspection they had been told that they were awaiting/hoping for approval from the Nuclear Regulatory Commission (NRC) to do so. Blair said that it is open again but by appointment only for such things a school trips and it is not open to the general public yet. A little while later security personnel arrived and Blair proceeded to assist in processing staff through the security checkpoints. Once staff made it through security it was approximately 10:30 a.m.

Once through security, our first stop was at the Security Diesel Generator (EU-SEC DIESEL GEN) and it is rated at approximately 5,175,000 mm/btu/hr. It was not in operation and its hour meter indicated it has operated for a total of 1503 hours. Blair said that it had just been serviced last month with an oil change and filters replaced.

Our next stop was at the location where the two emergency diesel fire pumps were located. They are located in adjacent rooms and one is designated East and the other West by the facility. In the ROP, the east one is designated EU-DSLFIREFUMP1 and the west EU-DSLFIREFUMP2. Neither one was operating and they were currently doing their yearly PM on the east one. According to Blair, they run these units once per month for readiness testing. The east pump has been operated for a total of 400.4 hours. Staff couldn't access the room that houses the west pump because it was considered "Guarded" since the east one was down for PM.

Our next stop was in the building that houses all four of the diesel fired generators. Each one was rated at 3.5 megawatts each and manufactured by Woodward-Worthington. The 1st two sets we looked at were designated 2AB (EU-2ABEDG) and 2CD (EU-2CDEDG). 2AB had 3,033.6 hours on it and 2CD had 3,583.4 hours on it. Neither was in operation during the inspection. The 2nd two sets we looked at were designated 1AB (EU-1ABEDG) and 1CD (EU-1ABEDG). 1AB had 3,544.2 hours on it and 1CD had 740.2 hours on it. Blair said that 1CD either had its hour meter re-set or a new one had been installed after they rebuilt it years ago. Neither of these were in operation and Blair said that they run the AB's and the CD's for readiness testing in alternating months.

Our next stop was outside to look at the 28.56 mm/btu/hr diesel fired boiler (EU-BOILER1) which was manufactured by Bulldog Boilers. It is housed in a trailer and wasn't in operation during staff's inspection. Blair said that it isn't used very often but when it is, it is typically for emergency steam heat.

Our next stop was where the 235 mm/btu/hr boiler was. This boiler was used years ago and has been rendered inoperable and is considered abandoned in place by the facility; therefore, it is not an emission unit in the ROP.

After checking out the old boiler we were done viewing the emission units in the "Secure" areas and proceeded to Blair's office to view records. The ROP Special Conditions and staff's comments regarding them will be follow later. After reviewing records, staff then proceeded with Blair through the security check points and out to the "Non-Secure" areas to view the last of the emission units.

Our first stop after leaving the secure areas was at the Main Gate Emergency Generator (EU-MAINGATEDSLGEN). It was manufactured by Generac and is rated at 4,167,000 mm/btu/hr. It was not operating and we noted that it had been operated for 708.4 hours. Blair said that it runs for about 20 minutes every Thursday for readiness checks.

Our next stop was at the Paint Shop (EU-PAINTSHOP). In this building they have a Blast Booth that was installed under the AQD Rule 285(l)(vi) permit exemption and a paint booth installed under the AQD Rule 287(c) permit exemption. Neither booth was in use during the inspection. Staff noted that the filters were in place but pretty dirty on the paint booth and told Blair that they needed to be replaced. He said he would follow up on this with the maintenance manager. Please see Rule 287(C) compliance comments toward the end of this report.

Our next stop was at the Training Center to view the emergency generator (EU-TRGCTRDSDLGEN) that is located there. It was not operating and staff noted it had been run for 434.3 hours.

Our next stop was outside the fenced in enclosure where the spent nuclear fuel is stored in casks. Inside the fenced in area there is an emergency generator (EU-DRYCASKDSLGEN) manufactured by Generac and is rated at 897,000 btu/hr. It is used for emergency situations for powering monitoring equipment, gates, security lights, etc. It was not in operation and staff couldn't access the fenced in area due to security and safety concerns.

Our next stop was up on a dune hill above the plant where there is an emergency generator (EU-COMTWRPRGEN) for the Communications Tower. It was not operating and staff noted it had 454.3 hours on it. Blair said that Cook doesn't own this generator and it serviced by the company that owns the tower(?) and they then forward that information on to him.

Our next stop was at the Maintenance Garage. Here we viewed one of the four cold cleaners located at the facility. According to Blair, this one is serviced by Safety Kleen and uses their proprietary solvent in it. Staff noted it had its lid closed and instructions on its use posted. It was not being used while staff was present. Blair said that the other three cold cleaners use EPA 2000 which is more environmentally

friendly. None of cold cleaners are heated units and staff had looked at the SDS for both cleaners previously and none contained any halogenated compounds.

Our last stop was at the fenced in enclosure that houses the two Supplemental Diesel Generators (EU-12-EP-DG-1 and EU-12-EP-DG-2). The two generators are equipped with their own 4,000 gallon diesel fuel tanks built underneath them. We had a hard time locating an analog type hour meter and Blair thought that they were digital. He later confirmed that they are digital meters and that they can pull the information up in the control room. (See Attached Documentation). Each engine has its own digital fuel use gauge as well. The engines were not in operation while staff was present and were told that they would be used for the reactor cooling pumps in an emergency situation.

After viewing all the equipment staff could access, staff thanked Blair for his time and departed at approximately 3:00 p.m.

The following lists the Special Conditions of the ROP and the facilities compliance status with them.

NOTE: Staff deleted all conditions that were designated Non-Applicable for the inspection write-up.

SOURCE-WIDE CONDITIONS

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. Fuel consumption in all equipment shall be monitored based on fuel receipts at the site and plant instrumentation showing fuel flows and/or operational hours to specific equipment as appropriate. (R 336.1213(3))

AQD Comment: Appears to be in Compliance with above.

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))
4. An annual report of emissions must be prepared and submitted pursuant to Condition 24 of Part A to the appropriate AQD District Office. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.202 and R 336.1212(6))

AQD Comment: Appears to be in Compliance with #1 through #4 above. The facility is submitting the required reports as necessary.

Footnotes:

¹This condition is state-only enforceable and was established pursuant to Rule 201(1)(b).

²This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

C. EMISSION UNIT CONDITIONS

Part C outlines terms and conditions that are specific to individual emission units listed in the Emission Unit Summary Table. The permittee is subject to the special conditions for each emission unit in addition to the General Conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA has been used in the table. If there are no conditions specific to individual emission units, this section will be left blank.

EMISSION UNIT SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-1ABEDG	1-OME-150AB - Unit 1 AB emergency diesel generator engine (35.088 MMBtu/hr heat input).	01-01-71	FG-EMERDIESELS FG-MACTZZZZ
EU-1CDEEDG	1-OME-150CD - Unit 1 CD emergency diesel generator engine (35.088 MMBtu/hr heat input).	01-01-71	FG-EMERDIESELS FG-MACTZZZZ
EU-2ABEDG	2-OME-150AB - Unit 2 AB emergency diesel generator engine (35.088 MMBtu/hr heat input).	01-01-71	FG-EMERDIESELS FG-MACTZZZZ
EU-2CDEEDG	2-OME-150CD - Unit 2 CD emergency diesel generator engine (35.088 MMBtu/hr heat input).	01-01-71	FG-EMERDIESELS FG-MACTZZZZ
EU-BOILER1	Alternate plant space heating boiler - No. 2 fuel oil (28.56 MMBtu/hr heat input) installed under a general permit.	06-10-09	FG-MACTJJJJJJ
EU-12-EP-DG-1	5,000 kw supplemental diesel generator 1.	02-16-05	FG-ENGINES FG-MACTZZZZ
EU-12-EP-DG-2	5,000 kw supplemental diesel generator 2.	02-16-05	FG-ENGINES FG-MACTZZZZ
EU-SECDIESELGEN	Detroit Diesel generator set - 550 kw, full load fuel consumption - 37.5 gph, estimated heat input @ 138,000 Btu/gal - 5,175,000 Btu/hr.	01-01-71	FG-MACTZZZZ
EU-DSLFIREFPUMP1	Cummins Model NTA855 - 400 hp, fuel consumption 20.9 gph, estimated heat input @ 138,000 Btu/gal - 2,884,200 Btu/hr.	12-01-92	FG-MACTZZZZ
EU-DSLFIREFPUMP2	Cummins Model NTA855 - 400 hp, fuel consumption 20.9 gph, estimated heat input @ 138,000 Btu/gal - 2,884,200 Btu/hr.	12-01-92	FG-MACTZZZZ
EU-TRGCTRDSLGEN	Detroit Diesel 550 hp diesel engine 12.7 L displacement Model Series YDDXL, estimated fuel consumption @ 138,000 Btu/gal - 23.0 gal/hr, estimated heat input - 3,174,000 Btu/hr.	01-01-01	FG-MACTZZZZ
EU-MAINGATEDSLGEN	Mitsubishi 16.0 liter displacement 400 kw generator	12-01-04	FG-MACTZZZZ

	electrical output, estimated fuel consumption: 30.2 gph, estimated heat input @ 138,000 Btu/gal - 4,167,600 Btu/hr.		
EU-COMTWRPRGEN	33 kw Kohler propane fired generator set Model 30RZG, 4.3 L GM Vortec spark ignition engine, estimated heat input - 370,000 Btu/hr.	10-01-02	FG-MACTZZZZ
EU-DRYCASKDSLGEN	Generac 80 kw diesel generator set, 132 hp @1800 RPM, fuel consumption - 6.5 gph, heat input @ 138,000 Btu/gal - 897,000 Btu/hr.	10-01-11	FG-NSPSIII
EU-PAINTSHOP	Paint shop that supports plant operations. Emission controls include a spray booth with filtration and a limitation of 200 gallons or less per month of paints and coatings being used.	06-01-98	FG-RULE287(2) (c)
EU-COLDCLEANERS	Five parts cleaner stations with closeable covers located in the plant and elsewhere on site. They may be relocated from time to time depending on maintenance needs.	Various	FG-COLDCLEANERS

EU-BOILER1**EMISSION UNIT CONDITIONS****DESCRIPTION**

Alternate plant space heating boiler - No. 2 fuel oil (28.56 MMBtu/hr heat input) installed under a general permit.

Flexible Group ID: FG-MACTJJJJJ

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. SO ₂	0.31 lb/MMBTU ^{2*}	Instantaneous	EUBOILER1	SC II.1 SC VI.1	R 336.1401
2. SO ₂	20 tpy ²	12-month rolling time period as determined at the end of each calendar month	EUBOILER1	SC VI.2 SC VI.4	R 336.1205(1) (a)(ii)(D) R 336.1401 40 CFR 52.21 (c) and (d)
3. NO _x	0.15 lb/MMBTU ²	Instantaneous	EUBOILER1	SC V.2	R 336.2803 R 336.2804
4. NO _x	11 tpy ²	12-month rolling time period as determined at the end of each	EUBOILER1	SC VI.2 SC VI.4	R 336.1205(1) (a)(ii)(D) R 336.2803

		calendar month.			R 336.2804 40 CFR 52.21 (c) and (d)
5. Arsenic	0.00084 pph ¹	Hourly	EUBOILER1	SC V.2	R 336.1225
*Equivalent to using fuel oil with a 0.30% sulfur content and higher heating value of 136,000 BTU/gallon.					

AQD Comment: Appears to be in Compliance with all the above. Records reviewed by staff of the most recent 12-month rolling time period ending in June 2019 indicate SO₂ emissions at 0.0004 tons for #2 above and NO_x at 0.12 for #4 above. #1, #3, and #5 above are currently N/A since the facility doesn't use RUO anymore.

6. Visible emissions from EUBOILER1 shall not exceed a six-minute average of 20 percent opacity, except as specified in R 336.1301(1)(a).² (R 336.1301, R 336.1331)

AQD Comment: Appears to be in Compliance. The boiler wasn't operating during the inspection and VEs don't appear to be an issue.

II. MATERIAL LIMIT(S)

1. The sulfur content of the No. 2 fuel oil added to the blended fuel for EUBOILER1 shall not exceed 0.30 percent by weight. (R 336.1201(3), R 336.1225, R 336.1401, R 336.1901)

AQD Comment: Appears to be in Compliance. The facility doesn't use blended fuel anymore and the sulfur content of their fuel deliveries has been 5 to 6ppm or 0.0005% - 0.0006%.

2. The permittee shall not add to the blended fuel oil tanks for EUBOILER1 any hazardous waste (as defined in state or federal law) or specification recycled used oil (RUO) containing any contaminant that exceeds the following concentrations from the standards specified in the following table. (R 336.1201(3), R 336.1225, R 336.1401)

Contaminant	Limit	Units
Arsenic	5.0 ²	ppmw
Cadmium	2.0 ²	ppmw
Chromium	10.0 ²	ppmw
Lead	15.0 ²	ppmw
PCB	1.0 ²	ppmw
Total Halogen	1000.0 ²	ppmw
Sulfur	0.3 ²	Weight %

AQD Comment: Appears to be in Compliance. Staff was told that they still haven't used any RUO in years and don't plan on using it again. They have their used oil taken off site now.

3. The blended fuel usage rate shall not exceed a maximum of 210 gallons per hour and shall not exceed a maximum usage rate of 919,800 gallons per calendar year.² (R 336.1205, R 336.1225, R 336.1401)

AQD Comment: Appears to be in Compliance. Staff was told that they still haven't used any RUO in years and don't plan on using it again. They have their used oil taken off site now.

4. The specification RUO added to the blended fuel shall not exceed 10,000 gallons per calendar year.² (R 336.1205, R 336.1225, R 336.1401, R 336.1702(a), R 336.1901)

AQD Comment: Appears to be in Compliance. Staff was told that they still haven't used any RUO in

years and don't plan on using it again. They have their used oil taken off site now.

5. The facility shall not use any specification RUO from an off-site source.² (R 336.1205, R 336.1225)

AQD Comment: Appears to be in Compliance. Staff was told that they still haven't used any RUO in years and don't plan on using it again. They have their used oil taken off site now.

6. The specification RUO shall be blended with No. 2 fuel oil prior to use in EUBOILER1 to the limits specified in the following table.² (R 336.1205, R 336.1225)

Contaminant	Limit	Units
Arsenic	0.50 ²	ppmw
Cadmium	0.20 ²	ppmw
Chromium	0.20 ²	ppmw

AQD Comment: Appears to be in Compliance. Staff was told that they still haven't used any RUO in years and don't plan on using it again. They have their used oil taken off site now.

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The SO₂ emission limits shall apply at all time including periods of start-up, shut-down, and malfunctions.²
(R 336.1205, R 336.1401)

AQD Comment: Appears to be in Compliance. The equipment is hardly used so staff assumes emissions should meet the limits during these periods.

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The permittee shall sample specification RUO prior to the addition to the blend tanks.² (R 336.1205, R 336.1225, R 336.1702(a), R 336.1901)

AQD Comment: Appears to be in Compliance. Staff was told that they still haven't used any RUO in years and don't plan on using it again. They have their used oil taken off site now.

2. The permittee shall sample blended fuel oil after each addition of the specification RUO to the blend tanks. Sampling of the blended fuel oil shall not be required if the sampling results of the specification RUO are below the blend limits specified in SC II.5.² (R 336.1205, R 336.1225)

AQD Comment: Appears to be in Compliance. Staff was told that they still haven't used any RUO in years and don't plan on using it again. They have their used oil taken off site now.

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The permittee shall keep records of, in a satisfactory manner, the maximum sulfur content, density, and higher heating value of the fuel from each supplier. If supplier certification is used for this purpose, records of certification must contain the name of the supplier and a statement from the supplier that oil complies with the requirements of 40 CFR 60.48c.² (R 336.1205, R 336.1225, R 336.1331, R 336.1702, R 336.1901)

AQD Comment: Appears to be in Compliance. The facility keeps documentation on all fuel deliveries and they are all sampled and lab analyzed for the requirements above.

2. The permittee shall monitor, in a satisfactory manner, the blended fuel oil usage for EUBOILER1 on a monthly and calendar year time period basis.² (R 336.1205, R 336.1225, R 336.1331, R 336.1702, R

336.1901)

AQD Comment: Appears to be in Compliance. Staff was told that they still haven't used any RUO in years and don't plan on using it again. They have their used oil taken off site now.

3. The permittee shall monitor, in a satisfactory manner, the RUO addition rate for EUBOILER1 on a monthly and calendar year time period basis.² (R 336.1205, R 336.1225, R 336.1331, R 336.1702, R 336.1901)

AQD Comment: Appears to be in Compliance. Staff was told that they still haven't used any RUO years and don't plan on using it again. They have their used oil taken off site now.

4. The permittee shall keep in a satisfactory manner, calculated on a monthly basis, 12-month rolling time period emission calculation records for SO₂ and NO_x for EUBOILER1. All records shall be kept on file and made available to the Department upon request.² (R 336.1205(1)(a))

AQD Comment: Appears to be in Compliance. The facility is doing this.

5. The permittee shall keep records of, in a satisfactory manner, the Arsenic, Cadmium, and Chromium concentrations in the blended fuel oil tanks as required per SC V.2. All records shall be kept on file and made available to the Department upon request.² (R 336.1205, R 336.1225, R 336.1901)

AQD Comment: Appears to be in Compliance. Staff was told that they still haven't used any RUO in years and don't plan on using it again. They have their used oil taken off site now.

VII. REPORTING

- Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
- Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
- Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))

AQD Comment: Appears to be in Compliance with #1 through #3 Above. The facility is submitting all the required reports as necessary.

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
SVBOILER1	24 ²	22 ²	R 336.1225 R 336.2803 R 336.2804 40 CFR 52.21(c) and (d)

AQD Comment: Appears to be in Compliance. The stack appears to meet the above dimension and

height.

IX. OTHER REQUIREMENT(S)

1. The facility shall comply with all the applicable provisions of 40 CFR Part 60, Subpart Dc-Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units. (40 CFR Part 60, Subpart Dc)

AQD Comment: Appears to be in Compliance with the above. The facility tracks fuel usage for the boiler, has documentation showing sulfur content of the fuel is below 0.5% by weight, and they were not required to do any performance testing on opacity since the unit is under 30 mm/btu/hr.

Footnotes:

¹This condition is state-only enforceable and was established pursuant to Rule 201(1)(b).

²This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

D. FLEXIBLE GROUP CONDITIONS

Part D outlines the terms and conditions that apply to more than one emission unit. The permittee is subject to the special conditions for each flexible group in addition to the General Conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (not applicable) has been used in the table. If there are no special conditions that apply to more than one emission unit, this section will be left blank.

FLEXIBLE GROUP SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FG-EMERDIESELS	Four 3,500 kw large bore emergency diesel generators located inside the main building.	EU-1ABEDG EU-1CDEDG EU-2ABEDG EU-2CDEDG
FG-ENGINES	Two 5,000 kw large bore supplemental diesel generators.	EU-12-EP-DG-1 EU-12-EP-DG-2
FG-MACTZZZZ	Any emergency spark ignition engines and emergency diesel engines subject to 40 CFR 63, Subpart ZZZZ.	EU-1ABEDG EU-1CDEDG EU-2ABEDG EU-2CDEDG EU-12-EP-DG-1 EU-12-EP-DG-2 EU-SECDIESELGEN EU-DSLFIREFPUMP1 EU-DSLFIREFPUMP2 EU-TRGCTRDSLGEN EU-MAINGATEDSLGEN EU-COMTWRPRGEN
FG-MACTJJJJJ	Alternate plant space heating boiler - No. 2 fuel oil (28.56 MMBtu/hr heat input).	EU-BOILER1
FG-NSPSIII	Any emergency reciprocating internal combustion engine subject to 40 CFR Part 60, Subpart III.	EU-DRYCASKDSLGEN
FG-RULE287(2)(c)	Paint shop that supports plant operations. Emission controls include a spray booth with	EU-PAINTSHOP

	filtration and a limitation of 200 gallons or less per month of paints, and coatings being used.	
FG-COLDCLEANERS	Five parts cleaner stations with closeable covers located in the plant and elsewhere on site. They may be relocated from time to time depending on maintenance needs.	EU-COLDCLEANERS

FG-EMERDIESELS**FLEXIBLE GROUP CONDITIONS****DESCRIPTION**

Four 3,500 kw large bore emergency diesel generators located inside the main building.

Emission Units: EU-1ABEDG, EU-1CDEDG, EU-2ABEDG, EU-2CDEDG

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. SO2	0.33 lb per million BTU heat input ^{2*}	24-hour average	EU-1ABEDG EU-1CDEDG EU-2ABEDG EU-2CDEDG	SC V.1	R 336.1401 40 CFR 52.21 (c) and (d)

*This is the equivalent to using oil with a 0.3% sulfur content and heat value of 18,000 BTUs per pound.

AQD Comment: Appears to be in Compliance. The AQD has not requested any testing to date.

2. Visible emissions from the emergency generators in FG-EMERDIESELS shall not exceed a 6-minute average of 20% opacity, except as specified in Rule 301(1)(a).² (R 336.1301)

AQD Comment: Appears to be in Compliance. The equipment was not operating during staff's inspection and VEs haven't been an issue.

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. Applicant shall not operate the emergency generators in FG-EMERDIESELS when electric power is available, except during periods of maintenance checks, operator training, and readiness testing under the plant Technical Specifications and/or by Nuclear Regulatory Commission (NRC) requirements.² (R 336.1225, R 335.1702, 40 CFR 52.21 (c) and (d))

AQD Comment: Appears to be in Compliance. Staff was told that these are strictly used for when power is lost and/or for the other reasons stated above. They were not operating during staff's inspection.

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. Verification of the SO2 emission limit from one or more representative units of FG-EMERDIESELS, by testing at owner's expense, in accordance with Department requirements, may be required. No less than 60 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. Verification of the emission factor includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. (R 336.1213(3)(a)(ii))

AQD Comment: Appears to be in Compliance. The AQD has not requested any testing to date.

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))

AQD Comment: Appears to be in Compliance with #1 through #3 Above. The facility is submitting all the required reports as necessary.

Footnotes:

¹ This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

² This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

FG-ENGINES

FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Two 5,000 kw large bore supplemental diesel generators.

Emission Units: EU-12-EP-DG-1, EU-12-EP-DG-2

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	515 lb ²	Per 1000 gal of diesel fuel consumed ²	FG-ENGINES	SC V.1 SC VI.1 SC VI.4	R 336.1205 (1)(a)

AQD Comment: Appears to be in Compliance. The AQD has not requested any testing to date under SC V.1 and the facility is doing the Monitoring Methods stated in SC VI.1 and VI.4.

II. MATERIAL LIMIT(S)

1. The permittee shall burn only diesel fuel in FG-ENGINES.¹ (R 336.1224, R 336.1225)

AQD Comment: Appears to be in Compliance. The engines only burn diesel fuel according to the facility.

2. If any electricity produced by FG-ENGINES is sold to a utility power distribution system, the sulfur content of the diesel fuel used in FG-ENGINES shall not exceed 0.05 percent by weight on an annual average. The annual average shall be calculated as specified in 40 CFR 72.7(d)(3).² (40 CFR Part 72.7)

AQD Comment: Appears to be in Compliance. These engines are only used during emergencies to supply power to the plant and is not sold for utility distribution.

3. The combined diesel fuel use for all units included in FG-ENGINES shall not exceed 136,000 gallons per 12-month rolling time period.² (R 336.1205(1)(a), R 336.1220, R 336.1224, R 336.1225, R 336.1702 (a), 40 CFR 52.21(c) and (d))

AQD Comment: Appears to be in Compliance. Records reviewed indicated a 12-month rolling total ending in June 2019 of 3,641 gallons.

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall operate FG-ENGINES in accordance with manufacturer's recommendations for safe and proper operation to minimize emissions during periods of start-up, shutdown, and malfunction.² (R 336.1912)

AQD Comment: Appears to be in Compliance. The engines appear to be in excellent condition and staff will assume they are maintaining them properly.

2. The total capacity from each unit included in FG-ENGINES shall not exceed 5 MW.² (40 CFR Part 72.7)

AQD Comment: Appears to be in Compliance.

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. Verification of the NOx emission limit (515 pounds NOx per 1000 gallons of fuel used) from one or more representative units of FG-ENGINES, by testing at owner's expense, in accordance with Department requirements, may be required. No less than 60 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. Verification of the emission factor includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test.² (R 336.1205(1)(a), R 336.2001, R 336.2003, R 336.2004)

AQD Comment: Appears to be in Compliance. The AQD has not requested any stack testing to date.

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The permittee shall install, calibrate, maintain, and operate in a satisfactory manner, a device to monitor and record the fuel use for FG-ENGINES on a monthly basis.² (R 336.1205(1)(a), R 336.1220, R 336.1224, R 336.1225, R 336.1702(a), 40 CFR 52.21(c) and (d))

AQD Comment: Appears to be in Compliance. Both engines are equipped with digital fuel use gauges and staff will have to assume they are maintaining and calibrating them properly.

2. The permittee shall keep, in a satisfactory manner, records of the date, duration, and description of any malfunction, any maintenance performed, and any testing results for FG-ENGINES.² (R 336.1912)

AQD Comment: Appears to be in Compliance. These engines hardly get used but they do have a computerized maintenance log where these items get inputted.

3. If any electricity produced by FG-ENGINES is sold to a utility power distribution system, the permittee shall keep records of the sulfur content calculated in percent by weight, on an annual average as required by SC II.2.² (40 CFR 72.7)

AQD Comment: Appears to be in Compliance. These engines are only used during emergencies to supply power to the plant and is not sold.

4. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period fuel use records for FG-ENGINES. The records must indicate the total amount of fuel use in FG-ENGINES.² (R 336.1205(1)(a), R 336.1220, R 336.1224, R 336.1225, R 336.1702(a), 40 CFR 52.21(c) and (d))

AQD Comment: Appears to be in Compliance.

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))

AQD Comment: Appears to be in Compliance with #1 through #3 Above. The facility is submitting all the required reports as necessary.

VIII. STACK/VENT RESTRICTION(S)

1. The exhaust gases from the stacks of FG-ENGINES shall be discharged unobstructed vertically upwards to the ambient air.² (R 336.1225, 40 CFR 52.21(c) and (d))

AQD Comment: Appears to be in Compliance. The engines do have hinged ran caps on their exhaust stacks but staff would assume that these would be fully open during operation and not obstruct exhaust flow.

IX. OTHER REQUIREMENT(S)

1. The permittee shall not replace or modify FG-ENGINES, or any portion of FG-ENGINES, unless all of the following conditions are met:² (R 336.1213)
 - a. The permittee shall update the general permit submitting a new Process Information Form (EQP5787) to the Permit Section and District Supervisor identifying the existing and new equipment a minimum of 10 days before the equipment is replaced or modified.
 - b. The permittee shall continue to meet all general permit to install applicability criteria after the replacement or modification is complete.
 - c. The permittee shall keep records of the date and description of the replacement or modification.

AQD Comment: Appears to be in Compliance with the above. To date, the facility has not replaced, added, or modified any of the engines installed under the original General Permit that the facility had for these.

Footnotes:

¹ This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

² This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

FG-MACTZZZZ	FLEXIBLE GROUP CONDITIONS
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DESCRIPTION

Any emergency spark ignition engines and emergency diesel engines subject to 40 CFR 63, Subpart ZZZZ.

Emission Units: EU-1ABEDG, EU-1CDEDG, EU-2ABEDG, EU-2CDEDG, EU-12-EP-DG-1, EU-12-EP-DG-2EU-SECDIESELGEN, EU-DSLFIREFUMP1, EU-DSLFIREFUMP2, EU-TRGCTRDSDLGEN, EU-MAINGATEDSLGEN, EU-COMTWRPREGEN

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. If you own or operate an emergency stationary RICE, you must operate the emergency stationary RICE according to the requirements in paragraphs (A) through (D) of this section. In order for the engine to be considered an emergency stationary RICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (A) through (D) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (A) through (D) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines: (40 CFR 63.6640(f))
 - a. There is no time limit on the use of emergency stationary RICE in emergency situations.
 - b. You may operate your emergency stationary RICE for any combination of the purposes specified in paragraphs (2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraphs (C) and (D) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (B):
 - i. Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.
 - ii. Emergency stationary RICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.
 - iii. Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.
 - c. Emergency stationary RICE located at major sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (B) of this section. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.
 - d. Emergency stationary RICE located at area sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (2) of this section. Except as provided in paragraphs (D)(i) and (ii) of this section, the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity:
 - i. Prior to May 3, 2014, the 50 hours per year for non-emergency situations can be used for peak shaving or non-emergency demand response to generate income for a facility, or to otherwise supply power as part of a financial arrangement with another entity if the engine is operated as part of a peak shaving (load management program) with the local distribution system operator and the power is provided only to the facility itself or to support the local distribution system.
 - ii. The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

- A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.
- B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
- C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
- D) The power is provided only to the facility itself or to support the local transmission and distribution system.
- E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

AQD Comment: Appears to be in Compliance with the Above. All engines are currently under 100 hours of operation for the year. Staff informed Blair to be mindful of the unit that has 61.6 hours on it so they don't go over the 50 and/or 100 hours of operation as allowed for above. The following lists the emission unit and their current hours:

EU-1ABEDG: 41.5
 EU-1CDEDG: 61.6
 EU-2ABEDG: 18.8
 EU-2CDEDG: 14.2
 EU-12-EP-DG-1: 13.0
 EU-12-EP-DG-2: 12.0
 EU-SECDIESELGEN: 0.7
 EU-DSLFIREFPUMP1 (East): 3.3
 EU-DSLFIREFPUMP2 (West): 5.7
 EU-TRGCTRDSLGEN: 7.0
 EU-MAINGATEDSLGEN: 12.5
 EU-COMTWRPREGEN: 10.9

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. In Accordance with 40 CFR Part 63 for Emergency Spark Ignition Engines and Emergency Diesel Engines, the permittee shall implement either an oil monitoring program as described in 63.6625(i) or (j) or change the oil and filter on the machine once per year; inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and inspect every 500 operating hours or annually, whichever comes first, all belts and hoses and replace as necessary. (40 CFR Part 63, Subpart ZZZZ, Table 2d, 40 CFR Part 63, Subpart ZZZZ)

AQD Comment: Appears to be in Compliance. The first 8 emissions units listed above are under an oil monitoring program and the last 3 use the PM mentioned above (See Attached Oil Analysis for the first 8 emission units).

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))

AQD Comment: Appears to be in Compliance with #1 through #3 above. The facility is submitting the required reports as necessary.

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart ZZZZ, for Stationary Reciprocating Internal Combustion Engines by the initial compliance date. (40 CFR 63.6595, 40 CFR Part 63, Subparts A and ZZZZ)

AQD Comment: Appears to be in Compliance with RICE MACT ZZZZ.

Footnotes:

¹This condition is state-only enforceable and was established pursuant to Rule 201(1)(b).

²This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

NOTE: The AQD is currently not delegated by the EPA to enforce the MACT-JJJJJJ regulation at area sources of HAPs, so staff did not review nor make any compliance determinations with regards to the conditions contained in the Flexible Group below.

FG-MACTJJJJJJ FLEXIBLE GROUP CONDITIONS
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DESCRIPTION

Alternate plant space heating boiler - No. 2 fuel oil (28.56 MMBtu/hr heat input).

Emission Unit: EU-BOILER1

II. MATERIAL LIMIT(S)

1. The boiler shall comply with the definition of the oil subcategory: the boiler burns any liquid fuel and is not in either the biomass or coal subcategories. (40 CFR 63, 63.11200(c), 40 CFR 63.11237)

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee must comply with each work practice standard, emission reduction measure, and management practice specified in Table 2 to 40 CFR Part 63, Subpart JJJJJJ that applies to the permittee's boiler. An energy assessment completed on or after January 1, 2008 that meets or is amended to meet the energy assessment requirements in Table 2 of 40 CFR Part 63, Subpart JJJJJJ satisfies the energy assessment requirement. A facility that operates under an energy management program established through energy management systems compatible with ISO 50001, that includes the affected units, also satisfies the energy assessment requirement. (40 CFR 63.11201(b))
2. The permittee must conduct a performance tune-up according to Section 63.11223(b), stated in SC III.4, and the permittee must submit a signed statement in the Notification of Compliance Status report that indicates that the permittee conducted a tune-up of the boiler. (40 CFR 63.11214(b))
3. For affected sources subject to the work practice standard or the management practices of a tune-up, the permittee must conduct a performance tune-up according to paragraph (b) of Section 63.11223, stated in SC III.4, and keep records as required in Section 63.11225(c), stated in SC VI.1, to demonstrate continuous compliance. The permittee must conduct the tune-up while burning the

type of fuel (or fuels in the case of boilers that routinely burn two types of fuels at the same time) that provided the majority of the heat input to the boiler over the 12 months prior to the tune-up. (40 CFR 63.11223(a))

4. The permittee must conduct a tune-up of the boiler biennially to demonstrate continuous compliance as specified in paragraphs (b)(1) through (7) of Section 63.11223, as listed below. Each biennial tune-up must be conducted no more than 25 months after the previous tune-up: (40 CFR 63.11223(b))
 - a. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (the permittee may delay the burner inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection). Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection. (40 CFR 63.11223(b)(1))
 - b. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available. (40 CFR 63.11223(b)(2))
 - c. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the permittee may delay the inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection. (40 CFR 63.11223(b)(3))
 - d. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any nitrogen oxide requirement to which the unit is subject. (40 CFR 63.11223(b)(4))
 - e. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. (40 CFR 63.11223(b)(5))
 - f. Maintain on-site and submit, if requested by the Administrator, a report containing the information in paragraphs (b)(6)(i) through (iii) of Section 63.11223, as listed below (40 CFR 63.11223(b)(6)):
 - i. The concentrations of CO in the effluent stream in parts per million, by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler. (40 CFR 63.11223(b)(6)(i))
 - ii. A description of any corrective actions taken as a part of the tune-up of the boiler. (40 CFR 63.11223(b)(6)(ii))
 - iii. The type and amount of fuel used over the 12 months prior to the tune-up of the boiler, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit. (40 CFR 63.11223(b)(6)(iii))
 - g. If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of startup. (40 CFR 63.11223(b)(7))

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The boiler shall have a heat input capacity of equal to or greater than 10 MMBtu per hour. (40 CFR Part 63, Subpart JJJJJJ)

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The permittee must maintain the records specified in paragraphs (c)(1) through (7) of Section 63.11225, as listed below: (40 CFR 63.11225(c))
 - a. As required in Section 63.10(b)(2)(xiv), the permittee must keep a copy of each notification and report that the permittee submitted to comply with 40 CFR Part 63, Subpart JJJJJJ and all documentation supporting any Initial Notification or Notification of Compliance Status that the permittee submitted. (40 CFR 63.11225(c)(1))
 - b. The permittee must keep records to document conformance with the work practices, emission reduction measures, and management practices required by Sections 63.11214 and 63.11223 as specified in paragraphs (c)(2)(i) through (vi) of Section 63.11225, as listed below: (40 CFR 63.11225(c)(2))

- i. Records must identify each boiler, the date of tune-up, the procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned. (40 CFR 63.11225(c)(2)(i))
- ii. For operating units that combust non-hazardous secondary materials that have been determined not to be solid waste pursuant to 40 CFR Section 241.3(b)(1), the permittee must keep a record which documents how the secondary material meets each of the legitimacy criteria under 40 CFR Section 241.3(d)(1). If the permittee combusts a fuel that has been processed from a discarded non-hazardous secondary material pursuant to 40 CFR Section 241.3(b)(4), the permittee must keep records as to how the operations that produced the fuel satisfies the definition of processing in 40 CFR Section 241.2 and each of the legitimacy criteria in 40 CFR Section 241.3(d)(1). If the fuel received a non-waste determination pursuant to the petition process submitted under 40 CFR Section 241.3(c), the permittee must keep a record that documents how the fuel satisfies the requirements of the petition process. For operating units that combust non-hazardous secondary materials as fuel per 40 CFR Section 241.4, the permittee must keep records documenting that the material is a listed non-waste under 40 CFR Section 241.4(a). (40 CFR 63.11225(c)(2)(ii))
- iii. For each boiler required to conduct an energy assessment, the permittee must keep a copy of the energy assessment report. (40 CFR 63.11225(c)(2)(iii))
- c. Records of the occurrence and duration of each malfunction of the boiler. (40 CFR 63.11225(c)(4))
- d. Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in Section 63.11205(a), stated in SC IX.4, including corrective actions to restore the malfunctioning boiler to its normal or usual manner of operation. (40 CFR 63.11225(c)(5))

- 2. The permittee's records must be in a form suitable and readily available for expeditious review. The permittee must keep each record for 5 years following the date of each recorded action. The permittee must keep each record on-site or be accessible from a central location by computer or other means that instantly provide access at the site for at least 2 years after the date of each recorded action. The permittee may keep the records off site for the remaining 3 years. (40 CFR 63.11225(d))

VII. REPORTING

- 1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
- 2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
- 3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))
- 4. The permittee must submit a signed certification in the Notification of Compliance Status report that an energy assessment of the boiler and its energy use systems was completed according to Table 2 to 40 CFR Part 63, Subpart JJJJJ and is an accurate depiction of the permittee's facility. (40 CFR 63.11214(c))
- 5. The permittee must submit the notifications specified in paragraphs (a)(1) through (5) of Section 63.11225, as listed below, to the administrator: (40 CFR 63.11225(a))
 - a. The permittee must submit all of the notifications in Sections 63.7(b); 63.8(e) and (f); and 63.9(b) through (e), (g), and (h) that apply to the permittee by the dates specified in those Sections except as specified in paragraphs (a)(2) and (4) of Section 63.11225. (40 CFR 63.11225(a)(1))
 - b. An Initial Notification must be submitted no later than January 20, 2014 or within 120 days after the source becomes subject to the standard. (40 CFR 63.11225(a)(2))
 - c. The permittee must submit the Notification of Compliance Status no later than 120 days after the applicable compliance date specified in Section 63.11196, stated in SC IX.3. The permittee must submit the Notification of Compliance Status in accordance with paragraphs (a)(4)(i) and (vi) of

- Section 63.11225, as listed below. The Notification of Compliance Status must include the information and certification(s) of compliance in paragraphs (a)(4)(i) through (v) of Section 63.11225, as applicable, and signed by a responsible official: (40 CFR 63.11225(a)(4))
- i. The permittee must submit the information required in Section 63.9(h)(2), except the information listed in Section 63.9(h)(2)(i)(B), (D), (E), and (F). (40 CFR 63.11225(a)(4)(i))
 - ii. "This facility complies with the requirements in Section 63.11214 to conduct an initial tune-up of the boiler." (40 CFR 63.11225(a)(4)(ii))
 - iii. "This facility has had an energy assessment performed according to Section 63.11214(c)." (40 CFR 63.11225(a)(4)(iii))
 - iv. For units that do not qualify for a statutory exemption as provided in Section 129(g)(1) of the Clean Air Act: "No secondary materials that are solid waste were combusted in any affected unit." (40 CFR 63.11225(a)(4)(v))
 - v. The notification must be submitted electronically using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to 40 CFR Part 63, Subpart JJJJJJ is not available in CEDRI at the time that the report is due, the written Notification of Compliance Status must be submitted to the Administrator at the appropriate address listed in Section 63.13. (40 CFR 63.11225(a)(4)(vi))
6. The permittee must prepare, by March 1 of each year, and submit to the delegated authority upon request, an annual compliance certification report for the previous calendar year containing the information specified in paragraphs (b)(1) through (4) of Section 63.11225. For boilers that are subject only to a requirement to conduct a biennial tune-up according to Section 63.11223(a) and not subject to emission limits or operating limits, the permittee may prepare only a biennial compliance report as specified in paragraphs (b)(1) and (2) of Section 63.11225, as listed below: (40 CFR 63.11225(b))
- a. Company name and address. (40 CFR 63.11225(b)(1))
 - b. Statement by a responsible official, with the official's name, title, phone number, email address, and signature, certifying the truth, accuracy and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of 40 CFR Part 63, Subpart JJJJJJ. The permittee's notification must include the following certification(s) of compliance, as applicable, and signed by a responsible official: (40 CFR 63.11225(b)(2))
 - i. "This facility complies with the requirements in Section 63.11223 to conduct a biennial or 5-year tune-up, as applicable, of each boiler." (40 CFR 63.11225(b)(2)(i))
 - ii. For units that do not qualify for a statutory exemption as provided in Section 129(g)(1) of the Clean Air Act: "No secondary materials that are solid waste were combusted in any affected unit." (40 CFR 63.11225(b)(2)(ii))
7. If the permittee intends to commence or recommence combustion of solid waste, the permittee must provide 30 days prior notice of the date upon which the permittee will commence or recommence combustion of solid waste. The notification must identify: (40 CFR 63.11225(f))
- a. The name of the owner or operator of the affected source, the location of the source, the boiler(s) that will commence burning solid waste, and the date of the notice. (40 CFR 63.11225(f)(1))
 - b. The currently applicable subcategory under 40 CFR Part 63, Subpart JJJJJJ. (40 CFR 63.11225(f)(2))
 - c. The date on which the permittee became subject to the currently applicable emission limits. (40 CFR 63.11225(f)(3))
 - d. The date upon which the permittee will commence combusting solid waste. (40 CFR 63.11225(f)(4))
8. If the permittee has switched fuels or made a physical change to the boiler and the fuel switch or change resulted in the applicability of a different subcategory within 40 CFR Part 63, Subpart JJJJJJ, in the boiler becoming subject to 40 CFR Part 63, Subpart JJJJJJ, or in the boiler switching out of 40 CFR Part 63, Subpart JJJJJJ due to a change to 100 percent natural gas, or the permittee has taken a permit limit that resulted in the permittee being subject to 40 CFR Part 63, Subpart JJJJJJ, the permittee must provide notice of the date upon which the permittee switched fuels, made the physical change, or took a permit limit within 30 days of the change. The notification must identify: (40 CFR 63.11225(g))

- a. The name of the owner or operator of the affected source, the location of the source, the boiler(s) that have switched fuels, were physically changed, or took a permit limit, and the date of the notice. (40 CFR 63.11225(g)(1))
- b. The date upon which the fuel switch, physical change, or permit limit occurred. (40 CFR 63.11225(g)(2))

IX. OTHER REQUIREMENT(S)

1. 40 CFR Part 63, Subpart JJJJJJ applies to each existing affected source as defined in paragraph (a) (1) of Section 63.11194, as listed below: (40 CFR 63.11194(a))
 - a. The affected source of 40 CFR Part 63, Subpart JJJJJJ is the collection of all existing industrial, commercial, and institutional boilers within a subcategory, as listed in Section 63.11200 and defined in Section 63.11237, located at an area source. (40 CFR 63.11194(a)(1))
2. An affected source is an existing source if the permittee commenced construction or reconstruction of the affected source on or before June 4, 2010. (40 CFR 63.11194(b))
3. If the permittee owns or operates an existing affected boiler, the permittee must achieve compliance with the applicable provisions in 40 CFR Part 63, Subpart JJJJJJ as specified in paragraphs (a)(1) and (3) of Section 63.11196, as listed below: (40 CFR 63.11196(a))
 - a. If the existing affected boiler is subject to a work practice or management practice standard of a tune-up, the permittee must achieve compliance with the work practice or management practice standard no later than March 21, 2014. (40 CFR 63.11196(a)(1))
 - b. If the existing affected boiler is subject to the energy assessment requirement, the permittee must achieve compliance with the energy assessment requirement no later than March 21, 2014. (40 CFR 63.11196(a)(3))
4. At all times the permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. (40 CFR 63.11205(a))
5. For existing affected boilers that have applicable work practice standards, management practices, or emission reduction measures, the permittee must demonstrate initial compliance no later than the compliance date that is specified in Section 63.11196, stated in SC IX.3, and according to the applicable provisions in Section 63.7(a)(2), except as provided in paragraph (j) of Section 63.11210, stated in SC IX.9. (40 CFR 63.11210(c))
6. If the permittee owns or operates an industrial, commercial, or institutional boiler and would be subject to 40 CFR Part 63, Subpart JJJJJJ except for the exemption in Section 63.11195(b) for commercial and industrial solid waste incineration units covered by 40 CFR Part 60 Subpart CCCC or Subpart DDDD, and the permittee ceases combusting solid waste, the permittee must be in compliance with 40 CFR Part 63, Subpart JJJJJJ on the effective date of the waste to fuel switch as specified in Section 60.2145(a)(2) and (3) of Subpart CCCC or Section 60.2710(a)(2) and (3) of Subpart DDDD. (40 CFR 63.11196(d))
7. For affected boilers that ceased burning solid waste consistent with Section 63.11196(d) and for which the initial compliance date has passed, the permittee must demonstrate compliance within 60 days of the effective date of the waste-to-fuel switch as specified in Section 60.2145(a)(2) and (3) of Subpart CCCC or Section 60.2710(a)(2) and (3) of Subpart DDDD. If the permittee has not conducted their compliance demonstration for 40 CFR Part 63, Subpart JJJJJJ within the previous 12 months, the permittee must complete all compliance demonstrations for 40 CFR Part 63, Subpart JJJJJJ before commencing or recommencing combustion of solid waste. (40 CFR 63.11210(g))
8. For affected boilers that switch fuels or make a physical change to the boiler that results in the applicability of a different subcategory within 40 CFR Part 63, Subpart JJJJJJ or the boiler becoming subject to 40 CFR Part 63, Subpart JJJJJJ, the permittee must demonstrate compliance within 180

days of the effective date of the fuel switch or the physical change. Notification of such changes must be submitted according to Section 63.11225(g), stated in VII.8. (40 CFR 63.11210(h))

9. For existing affected boilers that have not operated between the effective date of the rule and the compliance date that is specified for the permittee's source in Section 63.11196, the permittee must comply with the applicable provisions as specified in paragraphs (j)(2) and (3) of Section 63.11210, as listed below: (40 CFR 63.11210(j))
 - a. The permittee must complete the initial performance tune-up, if subject to the tune-up requirements in Section 63.11223, by following the procedures described in Section 63.11223(b), stated in SC III.4, no later than 30 days after the re-start of the affected boiler. (40 CFR 63.11210(j)(2))
 - b. The permittee must complete the one-time energy assessment, if subject to the energy assessment requirements specified in Table 2 of 40 CFR Part 63, Subpart JJJJJJ, no later than the compliance date specified in Section 63.11196, stated in SC IX.3. (40 CFR 63.11210(j)(3))
10. Table 8 to 40 CFR Part 63, Subpart JJJJJJ shows which parts of the General Provisions in Sections 63.1 through 63.15 apply to the permittee. (40 CFR 63.11235)

Footnotes:

¹ This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

² This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

FG-NSPSIII EMISSION UNIT CONDITIONS
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DESCRIPTION

- Any emergency reciprocating internal combustion engine subject to 40 CFR 60, Subpart IIII.

Emission Unit: EU-DRYCASKDSLGEN

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NMHC + NOx	4.0 g/kW-hr	Hourly	EU-DRYCASKDSLGEN	SC V.1 or SC VI.2	40 CFR 89.112(a)
2. CO	3.5 g/kW-hr	Hourly	EU-DRYCASKDSLGEN	SC V.1 or SC VI.2	40 CFR 89.112(a)
3. PM	0.2 g/kW-hr	Hourly	EU-DRYCASKDSLGEN	SC V.1 or SC VI.2	40 CFR 89.112(a)

AQD Comment: Appears to be in Compliance with the above three limits since the emergency generator is an EPA Certified Engine. (See Correspondence File for a copy of the Certification received on April 23, 2018).

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Diesel Fuel	Sulfur content shall not	Instantaneous	EU-DRYCASKDSLGEN	SC VI.3	40 CFR 60.4207(b) 40 CFR 80.510(b)

	exceed 15 ppm				
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AQD Comment: Appears to be in Compliance. The sulfur content of their fuel deliveries has been 5 to 6 ppm or 0.0005 to 0.0006%.

III. PROCESS/OPERATIONAL RESTRICTION(S)

- 1. The permittee shall operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR 60.4204 and 60.4205 over the entire life of EU-DRYCASKDSLGEN. (40 CFR 60.4206)**

AQD Comment: Appears to be in Compliance with the above.

- 2. The permittee shall maintain and operate EU-DRYCASKDSLGEN per the manufacturer's emission related written instructions. (40 CFR 60.4211(a)(1))**

AQD Comment: Appears to be in Compliance. The facility does routine maintenance on all their equipment and staff will assume that it's being operated properly.

- 3. The permittee shall operate EU-DRYCASKDSLGEN according to the requirements in 40 CFR 60.4211 (f)(1) through (3). In order for EU-DRYCASKDSLGEN to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs 40 CFR 60.4211(f)(1) through (3), is prohibited. If the permittee does not operate the engine according to the requirements in paragraphs 40 CFR 60.4211(f)(1) through (3), the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines. There is no time limit on the use of EU-DRYCASKDSLGEN in emergency situations. (40 CFR 60.4211(f), 40 CFR 60.4211(f)(1))**

AQD Comment: Appears to be in Compliance with the above. The emergency generator is only used as described above and has only been operated for 15.9 hours year to date.

- 4. The permittee may operate EU-DRYCASKDSLGEN for any combination of the purposes specified in paragraphs (f)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (f)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2): (40 CFR 60.4211(f)(2))**
 - a. EU-DRYCASKDSLGEN may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.**
 - b. EU-DRYCASKDSLGEN may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.**
 - c. EU-DRYCASKDSLGEN may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.**

AQD Comment: Appears to be in Compliance. The emergency generator has only been operated for the above circumstances.

- 5. The permittee may operate EU-DRYCASKDSLGEN for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response**

provided in paragraph (f)(2) of this section. Except as provided in paragraph (f)(3)(i) of this section, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity: (40 CFR 60.4211(f)(3))

- a. The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:
 - i. The engine is dispatched by the local balancing authority or local transmission and distribution system operator;
 - ii. The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
 - iii. The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
 - iv. The power is provided only to the facility itself or to support the local transmission and distribution system.
 - v. The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

AQD Comment: Appears to be in Compliance with the above. The conditions in a(i) through (v) have been non-applicable to date.

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall install a non-resettable hour meter on EU-DRYCASKDSLGEN prior to startup of the engine. (40 CFR 60.4209(a))

AQD Comment: Appears to be in Compliance. Staff's assumes the emergency generator is equipped with this since the facility records the hours on it monthly. Staff could not access this area due to security and safety concerns.

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. Within 180 days after issuance of this permit, the permittee shall verify NMHC + NOx, CO, and PM emission rates from EU-DRYCASKDSLGEN, by testing at owner's expense, in accordance with Department requirements or by providing manufacturer certification documentation as required in SC VI.2. If testing is to be performed, the permittee must submit a complete stack-testing plan to the AQD. No less than 60 days prior to testing, the permittee must submit a complete stack-testing plan to the AQD. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. (R 336.2001, R 336.2003, R 336.2004, 40 CFR 60.4211)

AQD Comment: Appears to be in Compliance. Testing wasn't required because the emergency generator is an EPA certified engine.

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The permittee shall keep in a satisfactory manner, records of hours of operation recorded through the non-resettable hour meter. The permittee shall document how many hours were spent during emergency operation, non-emergency operation and demand response operation. The permittee shall keep all records on file and make them available to the department upon request. (R 336.1213 (3), 40 CFR 60.4214(b))

AQD Comment: Appears to be in Compliance. The facility is tracking this information.

2. The permittee shall keep, in a satisfactory manner, a record of testing required in SC V.1 or manufacturer certification documentation indicating that EU-DRYCASKDSLGEN meets the

applicable emission limitations contained in the federal Standards of Performance for New Stationary Sources 40 CFR Part 60, Subpart III. The permittee shall keep all records on file and make them available to the Department upon request. (40 CFR 60.4211)

AQD Comment: Appears to be in Compliance. The emergency engine is EPA Certified.

3. The permittee shall keep, in a satisfactory manner, fuel supplier certification records or fuel sample test data, for each delivery of diesel fuel oil used in EU-DRYASKDSLGEN, demonstrating that the fuel sulfur content meets the requirement of 40 CFR 80.510(b). The certification or test data shall include the name of the oil supplier or laboratory, and the sulfur content of the fuel oil. (40 CFR 60.4207(a), 40 CFR 80.510(b))

AQC Comment: Appears to be in Compliance. The facility sample tests every fuel delivery and maintains the records of the results. The Sulfur Content requirement of 40 CFR 80.510(b) is 15 ppm or less for non-road engines and the lab analysis has shown there recent deliveries are between 5 and 6 ppm.

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))

AQD Comment: Appears to be in Compliance with #1 through #3 above. The facility is submitting the required reports as necessary.

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of the federal Standards of Performance for New Stationary Sources as set forth in 40 CFR Part 60, Subpart A and Subpart III. (40 CFR Part 60, Subpart A and III)

AQD Comment: The facility appears to be complying with the requirements of Subpart III.

Footnotes:

¹ This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

² This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

FG-RULE 287(2)(c)	FLEXIBLE GROUP CONDITIONS
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DESCRIPTION

Paint shop that supports plant operations. Emission controls include a spray booth with filtration and a limitation of 200 gallons or less per month of paints, and coatings being used.

Emission Unit: EU-PAINTSHOP

II. MATERIAL LIMIT(S)

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Material	Limit	Time Period/ Operating Scenario	Equipment	Underlying Applicable Requirement
1. Coatings	200 gallons	Per month, as applied, minus water, per emission unit	NA	R 336.1287(2)(c)(i)

AQD Comment: Appears to be in Compliance with the above. Records reviewed by staff indicated paint usage was typically under 5 gallons per month.

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. Any exhaust system that serves only coating spray equipment shall be equipped with a dry filter control or water wash control which is installed, maintained, and operated in accordance with the manufacturer's specifications, or the owner or operator develops a plan which provides to the extent practicable for the maintenance and operation of the equipment in a manner consistent with good air pollution control practices for minimizing emissions. (R 336.1287(2)(c)(ii))

AQD Comment: Will consider them to be in Compliance. The paint booth is equipped with filters on the exhaust vents. However, they were pretty dirty and staff informed Blair that they needed to be changed. Blair followed up with the maintenance manager to make sure that these are changed out on a regular basis and recorded (See Attached E-Mail Correspondence).

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The permittee shall maintain records of the following information for each emission unit for each calendar month using the methods outlined in the DEQ, AQD Rule 287(2)(c), Permit to Install Exemption Record form (EQP 3562) or in a format acceptable to the AQD District Supervisor: (R 336.1213(3))
 - a. Volume of coating used, as applied, minus water, in gallons. (R 336.1287(2)(c)(iii))
 - b. Documentation of any filter replacements or maintenance of water wash control for exhaust systems serving coating spray equipment or other documentation included in a plan developed by the owner or operator of the equipment. (R 336.1213(3))

AQD Comment: Will consider them to be in Compliance. The facility is tracking monthly paint usage in an acceptable format and the paint booth is equipped with filters on the exhaust vents. However, the filters were pretty dirty and staff informed Blair that they needed to be changed. Blair followed up with the maintenance manager to make sure that these are changed out on a regular basis and recorded.

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))

AQD Comment: Appears to be in Compliance with #1 through #3 Above. The facility is submitting all the required reports as necessary.

FG-COLDCLEANERS

AQD Comment: The facility appears to be in Compliance with all the requirements below. The facility has four cold cleaners located in various areas of the facility. All are non-heated units and they don't contain any of the halogenated compounds listed below. Staff only viewed the one in the Maintenance Shop that is serviced by Safety Kleen during the inspection and it had its lid closed and instructions posted on it. Blair said that the other 3 are similar units except that they service them in-house and use a product called EPA-2000 as mentioned previously. Blair has their make, serial number, date of installation, etc. on their monthly emissions tracking spreadsheet for each cleaner.

FG-COLD CLEANERS**FLEXIBLE GROUP CONDITIONS**DESCRIPTION

Five parts cleaner stations with closeable covers located in the plant and elsewhere on site. They may be relocated from time to time depending on maintenance needs.

Emission Unit: EU-COLDCLEANERS

II. MATERIAL LIMIT(S)

1. The permittee shall not use cleaning solvents containing more than five percent by weight of the following halogenated compounds: methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, chloroform, or any combination thereof. (R 336.1213(2))

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. Cleaned parts shall be drained for no less than 15 seconds or until dripping ceases. (R 336.1611(2)(b), R 336.1707(3)(b))
2. The permittee shall perform routine maintenance on each cold cleaner as recommended by the manufacturer. (R 336.1213(3))

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The cold cleaner must meet one of the following design requirements:
 - a. The air/vapor interface of the cold cleaner is no more than ten square feet. (R 336.1281(2)(h))
 - b. The cold cleaner is used for cleaning metal parts and the emissions are released to the general in-plant environment. (R 336.1285((2)r)(iv))
2. The cold cleaner shall be equipped with a device for draining cleaned parts. (R 336.1611(2)(b), R 336.1707(3)(b))
3. All new and existing cold cleaners shall be equipped with a cover and the cover shall be closed whenever parts are not being handled in the cold cleaner. (R 336.1611(2)(a), R 336.1707(3)(a))
4. The cover of a new cold cleaner shall be mechanically assisted if the Reid vapor pressure of the solvent is more than 0.3 psia or if the solvent is agitated or heated. (R 336.1707(3)(a))
5. If the Reid vapor pressure of any solvent used in a new cold cleaner is greater than 0.6 psia; or, if any solvent used in a new cold cleaner is heated above 120 degrees Fahrenheit, then the cold cleaner must comply with at least one of the following provisions:
 - a. The cold cleaner must be designed such that the ratio of the freeboard height to the width of the cleaner is equal to or greater than 0.7. (R 336.1707(2)(a))
 - b. The solvent bath must be covered with water if the solvent is insoluble and has a specific gravity of more than 1.0. (R 336.1707(2)(b))
 - c. The cold cleaner must be controlled by a carbon adsorption system, condensation system, or

other method of equivalent control approved by the AQD. (R 336.1707(2)(c))

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. For each new cold cleaner in which the solvent is heated, the solvent temperature shall be monitored and recorded at least once each calendar week during routine operating conditions. (R 336.1213(3))
2. The permittee shall maintain the following information on file for each cold cleaner: (R 336.1213(3))
 - a. A serial number, model number, or other unique identifier for each cold cleaner.
 - b. The date the unit was installed, manufactured or that it commenced operation.
 - c. The air/vapor interface area for any unit claimed to be exempt under Rule 281(2)(h).
 - d. The applicable Rule 201 exemption.
 - e. The Reid vapor pressure of each solvent used.
 - f. If applicable, the option chosen to comply with Rule 707(2).
3. The permittee shall maintain written operating procedures for each cold cleaner. These written procedures shall be posted in an accessible, conspicuous location near each cold cleaner. (R 336.1611(3), R 336.1707(4))
4. As noted in Rule 611(2)(c) and Rule 707(3)(c), if applicable, an initial demonstration that the waste solvent is a safety hazard shall be made prior to storage in non-closed containers. If the waste solvent is a safety hazard and is stored in non-closed containers, verification that the waste solvent is disposed of so that not more than 20 percent, by weight, is allowed to evaporate into the atmosphere shall be made on a monthly basis. (R 336.1213(3), R 336.1611(2)(c), R 336.1707(3)(c))

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))

INSPECTION CONCLUSION: The facility appears to be in Compliance with the terms and conditions of ROP-MI-B4252-2018 at the present time. However, staff did not make any compliance determinations as it relates to 40 CFR Part 63 Subpart JJJJJJ since the AQD is not currently delegated to enforce that regulation at area sources of HAPs.

NAME Matt Dahl

DATE 8-6-19

SUPERVISOR RIL 8/7/19

Deskings, Matthew (EGLE)

From: Blair K Zordell <bkzordell@aep.com>
Sent: Wednesday, July 31, 2019 3:41 PM
To: Deskings, Matthew (EGLE)
Subject: EGLE air inspection outstanding issues.
Attachments: ENV 40-cfr-63-zzzz Oil request to Enviromental-2.xlsx; SDG 1 and 2 hour readings.pdf

Here are the Oil analysis records for the U1 AB CD, and U2 AB CD Diesels.

SDG: We were looking at the right thing – both are now at 424 hours (attached).

Paint and Blast shop filters: I also ran into the maintenance manager, he is going to put a recurring task into the maint schedule to inspect and replace the filters every quarter.

U1 CD Diesel generator: And.. I Talked to the head of the licensing dept, They are still wrangling with the 1 CD Diesel gen, and they want to run it another 24 hours. I definitely told him that we need to document and charge these hours to specific NRC requirements in order to not exceed our permit.

From: Phil Coffin <jpcoffin@aep.com>
Sent: Wednesday, July 31, 2019 1:40 PM
To: Blair K Zordell <bkzordell@aep.com>; Sam Weaver <srweaver@aep.com>
Subject: FW: Request for oil condition on EDGs

Blair,
I noticed the U2 Oil samples were a little out of date and checked my records. The attached file has the updated data for U2. Everything else is current.

Thanks

Phil Coffin

Oil Analysis Program Owner
Ext. 2365

From: Phil Coffin
Sent: Wednesday, July 31, 2019 1:13 PM
To: Blair K Zordell <bkzordell@aep.com>
Cc: Sam Weaver <srweaver@aep.com>
Subject: Request for oil condition on EDGs

Blair,
Please see the attached file for oil condition on EDGs. I am happy to discuss my data and analysis if need be. Let me know if you need anything else.

Guideline	ENVG-AEG-001	Rev. 6	Page 22 of 25
Cook Plant Air Emissions Inventory Tracking and Opacity Monitoring Guideline			
Data Sheet 11	Supplemental Diesel Generators #1 and #2 Diesel Fuel Consumption and Operating Hours Worksheet		Pages: 22

Year 2019 Supplemental Diesel Generators #1 and #2 Diesel Fuel Consumption and Operating Hours Worksheet

Engine Rating: 3210 HP Emergency Engine YES Engine Model Year: 2004 Facility or Major Source for HAPS: NO

Engine Latitude/Longitude Coordinates 41.975575/-86.565242 Fuel Type: Ultra low sulfur #2 Diesel Fuel Oil

For emergency engines: Is Engine Contractually Obligated to Operate for Emergency Demand Response or Voltage/Frequency Deviations for more than 15 hours calendar year? NO

Month	Supplemental DG #1 Hour Meter Reading	Supplemental DG#1 Total Operating Hours For Month	Supplemental DG#1 Monthly Total Gallons Used	Supplemental DG#1 Operating Days For Month	Supplemental DG #2 Hour Meter Reading	Supplemental DG#2 Total Operating Hours For Month	Supplemental DG#2 Monthly Total Gallons Used	Supplemental DG#2 Operating Days For Month
January	411	0	28	2	411	0	7	2
February	414	3	294	2	414	3	306	2
March	414	0	0	18 1/2	414	0	0	18 1/2
April	415	1	0	2	414	0	21	2
May	417	2	291	2	417	3	278	2
June	424	7	413	5	423	6	420	5
July								
August								
September								
October								
November								
December								
Total								

Monthly: Enter the gallons used for the month. Total the operating hours for the month.

6-6-19
5-7-19
4-3-19
3-2-19
2-5-19

Initial: DW Date: 1-15-19

For Guidelines on values on the limits allowed to meet the Environmental requirements on Diesel Engine oil see 12-EHP-5030-OIL-001, Figure 7, Environmental requirements for D.C. Cook Large Diesel Engines.

component	Sample Date	Lab	Oil Change PMRQ	Oil change Freq	Oil	Sys	Analysis	Reference
12-OME-215E	6/1/19	V1520140	115566-05	Y01 maybe	Delvac 1300 Super15W40	Fire	Visc at 14.38, TBN=6.43 TREND AR 2018-10687, Iron at 13 Alum=23, %H2O at <0.1, H2O-KF 416, Flash COC=NES	2018-10687 adverse trend in TBN NEIL Lic-Ren h2o, corrosion Enviro 40 CFR63zzz Vis 12 - 18 TBN 3.15 H2O<0.5%
12-OME-215W	5/18/19	V1520275	115557	Y01 maybe	Delvac 1300 Super15W40	Fire	Visc at 14.38, TBN=8.11, Iron at 5 steady, H2O at <0.1%, 425 KF, Flash COC =NES	NEIL Lic-Ren h2o, corrosion Enviro 40CFR63zzz Vis 12 - 18 TBN 3.15 H2O<0.5%
1-OME-150-AB	4/19/19	V1514211	126443-1	Y12	Mobilgard 410NC	EDG	Vis=14.23 TBN=10.71 KF water is 315 ppm FTIR water % is <.1. iron is 5, Alum is 3, Flash COC=249 Kill the Fuel Dilution by G.C. ASTM 3524 \$48. I have FTIR for Diesel	NEIL Lic-Ren h2o, corrosion Enviro 40CFR63zzz Vis 11.6 -16.7 TBN >3.9 H2O<0.5%WT
1-OME-150-CD	5/31/19	V1520276	116448	Y12	Mobilgard 410NC	EDG	Vis at 13.93, TBN @ 10.8 No Soot or Fuel, iron at 4 normal. %H2O<.1Wt, 284pm Water by KF	NEIL Lic-Ren h2o, corrosion Enviro 40CFR63zzz Vis 11.6 -16.7 TBN >3.9 H2O<0.5%WT
2-OME-150-AB	6/21/19	V1522261	128403-1	Y12	Mobilgard 410NC	EDG	VISC 14.29 TBN @ 10.37 water at 401 H2O% Vol <0.1 Fe 4, Al 2, Flash COC=250	NEIL Lic-Ren h2o, corrosion Enviro 40CFR63zzz Vis 11.6 -16.7 TBN >3.9 H2O<0.5%WT
2-OME-150-CD	6/7/19	V1522259	126458-1	Y12	Mobilgard 410NC	EDG	Vis 14.3, TBN @ 10.04 water is 432KF H2O%Vol=<.1, low metals: Fe-5,Al-2, Flash COC=258	NEIL Lic-Ren h2o, corrosion Enviro 40CFR63zzz Vis 11.6 -16.7 TBN >3.9 H2O<0.5%WT
12-OME-250-SDG1	2/25/19	V1506176		Y10	Cat 15W40	EDG	Vis at 14.89 TBN:9.88, H2O at 96 water%<0.10, flash is 450 %	NEIL Enviro 40CFR63zzz Vis 12 -16 TBN >3.4 H2O<0.5%WT
12-OME-250-SDG2	2/25/19	V1506177		Y10	Cat 15W40	EDG	Vis at 14.98 TBN:8.99, H2O at 93 water%<0.10, flash is 445 %	NEIL Enviro 40CFR63zzz Vis 12 -16 TBN >3.4 H2O<0.5%WT

- EUDSL FIRE PUMP 1

- EUDSL FIRE PUMP 2

- EU-1 ABEDG

+ EU-1 CD EDG

- EU-2 ABEDG

- EU-2 CDE DG

- EU-12-EP-DG-1

- EU-12-EP-DG-2

Deskings, Matthew (EGLE)

From: Blair K Zordell <bkzordell@aep.com>
Sent: Thursday, August 1, 2019 9:39 AM
To: Deskings, Matthew (EGLE)
Subject: RE: Cook permit, Page 24.

My first impressions here are both required, and diagnosed. But, We run them 2 hours per month to prove they function as required by NRC and Tech specs, so that's 24 hours per year that I can document as "required" - The rest is "maint" or testing, but I have not dug into this much today and can probably document even more hours as "required"

From: Deskings, Matthew (EGLE) <DESKINSM@michigan.gov>
Sent: Thursday, August 1, 2019 9:34 AM
To: Blair K Zordell <bkzordell@aep.com>
Cc: David J Long <djlong@aep.com>; Kimberly M Hughes <kmhughes@aep.com>
Subject: [EXTERNAL] RE: Cook permit, Page 24.

This is an **EXTERNAL** email. **STOP. THINK** before you **CLICK** links or **OPEN** attachments. If suspicious please click the '**Report to Incidents**' button in Outlook or forward to incidents@aep.com from a mobile device.

Hi Blair,

If it's being operated to insure that it's running properly for readiness testing under NRC requirements than I would agree. In our discussion yesterday I was under the impression that they were operating it in attempts to figure out/diagnose what is wrong with it, which in my mind wouldn't be a regular maintenance check or readiness testing. But then again, I'm not familiar with NRC requirements and what they require nuclear plants to do on a regular basis to ensure emergency equipment is always ready to go.

From: Blair K Zordell <bkzordell@aep.com>
Sent: Thursday, August 1, 2019 9:18 AM
To: Deskings, Matthew (EGLE) <DESKINSM@michigan.gov>
Cc: David J Long <djlong@aep.com>; Kimberly M Hughes <kmhughes@aep.com>
Subject: Cook permit, Page 24.

From my permit, I believe that the last sentence of this paragraph allows us to exceed 100 hours of run time per year. I have looked into the tech specs here, and the runs are required for Tech specs/ NRC requirements. So would this be a "federal Standard" requiring maint and testing beyond 100 hours? The RICE in question is not running properly and in order for it to remain "operable" we need to run it more. And its availability is an NRC and Tech Spec requirement.

- i. Emergency stationary RICE may be operated for main that the tests are recommended by federal, state or local the regional transmission organization or equivalent by the insurance company associated with the engine Administrator for approval of additional hours to be testing, but a petition is not required if the owner or operator state, or local standards require maintenance and tests calendar year.