

PERMIT TO INSTALL

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COMMON ACRONYMS

AQD	Air Quality Division
BACT	Best Available Control Technology
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
COMS	Continuous Opacity Monitoring System
Department/department/EGLE	Michigan Department of Environment, Great Lakes, and Energy
EU	Emission Unit
FG	Flexible Group
GACS	Gallons of Applied Coating Solids
GC	General Condition
GHGs	Greenhouse Gases
HVLP	High Volume Low Pressure*
ID	Identification
IRSL	Initial Risk Screening Level
ITSL	Initial Threshold Screening Level
LAER	Lowest Achievable Emission Rate
MACT	Maximum Achievable Control Technology
MAERS	Michigan Air Emissions Reporting System
MAP	Malfunction Abatement Plan
MSDS	Material Safety Data Sheet
NA	Not Applicable
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standard for Hazardous Air Pollutants
NSPS	New Source Performance Standards
NSR	New Source Review
PS	Performance Specification
PSD	Prevention of Significant Deterioration
PTE	Permanent Total Enclosure
PTI	Permit to Install
RACT	Reasonable Available Control Technology
ROP	Renewable Operating Permit
SC	Special Condition
SCR	Selective Catalytic Reduction
SNCR	Selective Non-Catalytic Reduction
SRN	State Registration Number
TBD	To Be Determined
TEQ	Toxicity Equivalence Quotient
USEPA/EPA	United States Environmental Protection Agency
VE	Visible Emissions

*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 psig

POLLUTANT / MEASUREMENT ABBREVIATIONS

acfm	Actual cubic feet per minute
BTU	British Thermal Unit
°C	Degrees Celsius
CO	Carbon Monoxide
CO ₂ e	Carbon Dioxide Equivalent
dscf	Dry standard cubic foot
dscm	Dry standard cubic meter
°F	Degrees Fahrenheit
gr	Grains
HAP	Hazardous Air Pollutant
Hg	Mercury
hr	Hour
HP	Horsepower
H ₂ S	Hydrogen Sulfide
kW	Kilowatt
lb	Pound
m	Meter
mg	Milligram
mm	Millimeter
MM	Million
MW	Megawatts
NMOC	Non-Methane Organic Compounds
NO _x	Oxides of Nitrogen
ng	Nanogram
PM	Particulate Matter
PM ₁₀	Particulate Matter equal to or less than 10 microns in diameter
PM _{2.5}	Particulate Matter equal to or less than 2.5 microns in diameter
pph	Pounds per hour
ppm	Parts per million
ppmv	Parts per million by volume
ppmw	Parts per million by weight
psia	Pounds per square inch absolute
psig	Pounds per square inch gauge
scf	Standard cubic feet
sec	Seconds
SO ₂	Sulfur Dioxide
TAC	Toxic Air Contaminant
Temp	Temperature
THC	Total Hydrocarbons
tpy	Tons per year
µg	Microgram
µm	Micrometer or Micron
VOC	Volatile Organic Compounds
yr	Year

GENERAL CONDITIONS

1. The process or process equipment covered by this permit shall not be reconstructed, relocated, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule. **(R 336.1201(1))**
2. If the installation, construction, reconstruction, relocation, or modification of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environment, Great Lakes, and Energy, P.O. Box 30260, Lansing, Michigan 48909-7760, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. **(R 336.1201(4))**
3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to Rule 210 (R 336.1210), operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. **(R 336.1201(6)(b))**
4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. **(R 336.1201(8), Section 5510 of Act 451, PA 1994)**
5. The terms and conditions of this Permit to Install shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to Rule 219 and the Department approves the request, this permit will be amended to reflect the change of ownership or operational control. The request must include all of the information required by subrules (1)(a), (b), and (c) of Rule 219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environment, Great Lakes, and Energy. **(R 336.1219)**
6. Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. **(R 336.1901)**
7. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). **(R 336.1912)**
8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended or the Federal Clean Air Act.
9. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.
10. Operation of this equipment may be subject to other requirements of Part 55 of 1994 PA 451, as amended and the rules promulgated thereunder.

11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of Rule 301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with Rule 303 (R 336.1303). **(R 336.1301)**
 - a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
 - b) A visible emission limit specified by an applicable federal new source performance standard.
 - c) A visible emission limit specified as a condition of this Permit to Install.
12. Collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in Rule 370(2). **(R 336.1370)**
13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001. **(R 336.2001)**

EMISSION UNIT SPECIAL CONDITIONS

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
EUK2MACHINE	Material handling process including dry and wet end process, steam heated drying cylinders, coating preparation and handling equipment, curtain coater of the paperboard machine and associated natural gas fired dryers.	Permit Issue Date	FGK2MACHINE, FGPROJECT2019
EUBOILER#8	Natural gas fired boiler with a maximum heat input of 240 MMBTU/hr.	01-01-59 01-01-68	NA
EUBOILER#9	Boiler No. 9 - Natural gas and fuel oil fired boiler equipped with low NO _x burners and flue gas recirculation with a maximum heat input of approximately 227 MMBTU/hr.	10-01-91 NA	NA
EUBOILER#10	311 MMBtu/hr natural gas fired boiler used to heat steam for dryer and hot water to be used on the paper machine.	Permit Issue Date	FGBOILERS10-11, FGPROJECT2019
EUBOILER#11	311 MMBtu/hr natural gas fired boiler used to heat steam for dryer and hot water to be used on the paper machine.	Permit Issue Date	FGBOILERS10-11 FGPROJECT2019
EUK2CALHEAT1	5.46 MMBtu/hr natural gas fired Precoat Calendar Heater (Plant ID Oil heater #1).	Permit Issue Date	FGK2MACHINE, FGPROJECT2019
EUK2CALHEAT2	2.15 MMBtu/hr natural gas fired Precoat Calendar Heater (Plant ID Oil heater #2).	Permit Issue Date	FGK2MACHINE, FGPROJECT2019
EUK2DRYER1	7,100 kW (24.21 MMBtu/hr) natural gas fired Air Impingement Dryer - Predryer section of the paperboard machine (Plant ID OptiDry).	Permit Issue Date	FGK2MACHINE, FGPROJECT2019
EUK2DRYER2	1,586 kW (5.41 MMBtu/hr) natural gas fired High Intensity Air Dryer after 1st Coater in the paperboard machine (Plant ID 76CB612_1.1).	Permit Issue Date	FGK2MACHINE, FGPROJECT2019
EUK2DRYER3	2,045 kW (6.98 MMBtu/hr) natural gas fired Air Dryer after 1st Coater of the paperboard machine (Plant ID 76CB622).	Permit Issue Date	FGK2MACHINE, FGPROJECT2019
EUK2DRYER4	7.38 MMBtu/hr Infrared Dryer after 2nd Coater of the paperboard machine (Plant ID IR Dryer).	Permit Issue Date	FGK2MACHINE, FGPROJECT2019
EUK2DRYER5	2,045 kW (6.98 MMBtu/hr) natural gas fired Air Dryer after 2nd Coater of the paperboard machine (Plant ID76CB632_2.1).	Permit Issue Date	FGK2MACHINE, FGPROJECT2019
EUK2DRYER6	2,045 kW (6.98 MMBtu/hr) natural gas fired Air Dryer after 2nd Coater of the paperboard machine (Plant ID76CB632_2.2).	Permit Issue Date	FGK2MACHINE, FGPROJECT2019
EUK2DRYER7	2,045 kW (6.98 MMBtu/hr) natural gas fired Air Dryer after 2nd Coater of the paperboard machine (Plant ID76CB632_2.3).	Permit Issue Date	FGK2MACHINE, FGPROJECT2019

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date / Modification Date	Flexible Group ID
EUCOOLINGTW1	Utility Cooling Towers- 6,227 gallon per minute maximum operating capacity for the three-cell system	Permit Issue Date	FGPROJECT2019
EUK2STARCH	10,600 cubic feet silo, starch preparation and handling equipment, and starch application equipment. Cylindrical jacket with conical discharge, includes dust bin vent filter.	Permit Issue Date	FGPROJECT2019
EUK2AMU	Natural gas Air Makeup Units (AMU) with a combined heat capacity of 106.5 MMBtu/hr	Permit Issue Date	NA

Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1291.

EUBOILER#8 EMISSION UNIT CONDITIONS

DESCRIPTION

EUBOILER#8 is a natural gas boiler with a maximum heat input of 240 MMBTU/hr.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. NO _x	40.4 tpy*	12-month rolling time period as determined at the end of each calendar month	EUBOILER#8	SC VI.3	R 336.1205, 40 CFR 52.21(a)(2)(iv), R 336.2803, R 336.2804
2. NO _x	154 lb/MMCF	Hourly	EUBOILER#8	SC V.1	R 336.1205, 40 CFR 52.21(a)(2)(iv), R 336.2803, R 336.2804

* Established based on an emission factor of 154 lb/MMCF of natural gas burned and the fuel restriction in SC II.1.

II. MATERIAL LIMIT(S)

Material	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. Natural Gas	525 MMCF/yr	12-month rolling time period as determined at the end of each calendar month	EUBOILER#8	SC VI.2	R 336.1205, 40 CFR 52.21(a)(2)(iv), R 336.2803, R 336.2804

2. The permittee shall burn only pipeline quality natural gas in EUBOILER#8. **(R 336.1205, R 336.2803, R 336.2804, 40 CFR 52.21(a)(2)(iv))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EUBOILER#8 with a maximum heat input in excess of 240 million BTU per hour. **(R 336.1205, 40 CFR 52.21(a)(2)(iv), R 336.2803, R 336.2804)**
2. The permittee shall not operate EUBOILER#8 unless a malfunction abatement plan (MAP) as described in Rule 911(2) is implemented and maintained. The MAP shall, at a minimum, meet the manufacturer's written instructions for operating and maintaining the boiler and emission control equipment and shall specify the following:

- a) A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.
- b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.
- c) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.
- d) A description of how emissions will be minimized during all startups, shutdowns and malfunctions.

If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 90 days after such an event occurs. The permittee shall also amend the MAP within 90 days if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. **(R 336.1911)**

3. The permittee shall not modify or replace the deaeration tank system for EUBOILER#8 and EUBOILER#9 in a manner that allows the combined steam generated by the boilers to exceed 180,000 lbs of steam per hour. **(R 336.2803, R 336.2804)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall verify NO_x emission rates in lb/MMCF of natural gas from EUBOILER#8 at least once every 60 months by testing at the owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 60, Appendix A. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol or schedule that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1205, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205, 40 CFR 52.21(a)(2)(iv), R 336.2803, R 336.2804)**
2. The permittee shall monitor and record the total natural gas consumption rate, in million cubic feet, for each calendar month and 12-month rolling time period. **(R 336.1205, 40 CFR 52.21(a)(2)(iv), R 336.2803, R 336.2804)**

3. The permittee shall keep in a satisfactory manner, monthly and 12-month rolling time period emission calculations for NO_x. The emission calculations will be based upon the fuel used and the lb/MMCF emission rate from the most recent stack test. The permittee shall keep all records on file and make them available to the Department upon request. (R 336.1205(1)(a), R 336.1205(3), R 336.1225, R 336.1702, R 336.2802, R 336.2803, R 336.2804)

VII. REPORTING

NA

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 Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVBOILER#8	69	115	R 336.2803, R 336.2804

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

EUBOILER#9 EMISSION UNIT CONDITIONS

DESCRIPTION

EUBOILER#9 is a natural gas boiler with a maximum heat input of 227 MMBTU/hr.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Low NOx burners and flue gas recirculation

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	0.06 lbs/MMBTU of heat input	Calendar Day	EUBOILER#9	SC VI.2 SC VI.3	R 336.1205, 40 CFR 52.21(j)
2. NOx	0.10 lbs/MMBTU of heat input	30 day rolling average basis	EUBOILER#9	SC VI.1 SC VI.2 SC VI.3	40 CFR 60.44b
3. NOx	13.6 pph	Hourly	EUBOILER#9	SC VI.2 SC VI.3	R 336.1205, 40 CFR 52.21(c) & (d)
4. NOx	59.6 tpy*	12-month rolling time period as determined at the end of each calendar month	EUBOILER#9	SC VI.2 SC VI.3	R 336.1205, 40 CFR 52.21(a)(2)(iv)
5. Total gaseous NMOC, measured as methane	0.025 lbs/MMBTU of heat input	Hourly	EUBOILER#9	SC V.1	R 336.1702(a)
6. Total gaseous NMOC, measured as methane	5.7 pph	Hourly	EUBOILER#9	SC V.1	R 336.1702(a)

*Established based on 0.06 lb/MMBtu and the maximum capacity of the boiler of 227 MMBtu/hr

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

- The permittee shall burn only natural gas in EUBOILER#9. **(R 336.1205)**
- The permittee shall not operate EUBOILER#9 unless a malfunction abatement plan (MAP) as described in Rule 911(2), is implemented and maintained. The MAP shall, at a minimum, meet the manufacturer's written instructions for operating and maintaining the boiler and emission control equipment and shall specify the following:

- a) A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.
- b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.
- c) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.
- d) A description of how emissions will be minimized during all startups, shutdowns and malfunctions.

If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 90 days after such an event occurs. The permittee shall also amend the MAP within 90 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. **(R 336.1911)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EUBOILER#9 unless the associated flue gas recirculation system and low NO_x burners are installed, maintained, and operated in a satisfactory manner. Satisfactory manner includes operating and maintaining each control device in accordance with an approved MAP as required in SC III.2. **(R 336.1910, 40 CFR 52.21(j))**
2. The permittee shall not operate EUBOILER#9 unless the associated continuous emission monitor system (CEMS) to record NO_x emissions is installed and operating properly as determined by the District Supervisor. **(40 CFR 60.13(f), 40 CFR 60.48b(b))**
3. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the NO_x emissions and oxygen (O₂) or carbon dioxide (CO₂), content of the exhaust gas from EUBOILER#9 on a continuous basis. The permittee shall install and operate the Continuous Emission Monitoring System (CEMS) to meet the timelines, requirements and reporting detailed in Appendix 1. **(R 336.1205(1)(a) and (b), 40 CFR 60.48b(b), 40 CFR 52.21)**

See Appendix 1

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall verify NMOC emission rates from EUBOILER#9 at least once every 60 months by testing at the owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 60, Appendix A. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol or schedule that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1205, R 336.1702(a), R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.2(c) & (d))**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall perform all monitoring and recording of emissions and operating information as required to comply with the Federal Standards of Performance for New Stationary Sources as specified in 40 CFR, Part 60, Subparts A and Db. This includes the 30-day rolling NO_x lb/MMBtu emission rate for EUBOILER#9.

All required reporting shall be submitted to the District Supervisor in an acceptable format within 30 days following the end of the quarter in which the data were collected. **(40 CFR 60.49b)**

2. The permittee shall keep, in a satisfactory manner, records of the hourly, daily, and 12-month rolling NOx emission rates for EUBOILER#9, as required by SC I.1, I.3 and I.4. The NOx emission rates required in SC I.1, I.3 and I.4 shall be updated and completed by the end of each calendar month. These emission rates shall be derived from the NOx emissions data recorded by the CEM and recorded fuel rates, if applicable, as described in Appendix 2. **(R 336.1205, 40 CFR 52.21(j))**
3. The permittee shall continuously monitor and record, in a satisfactory manner, the CEMS data needed to demonstrate compliance with SC I.1, I.2, I.3 and I.4 including, but not limited to the NOx concentration and the O₂, or CO₂, concentrations from EUBOILER#9. The permittee shall operate each CEMS to meet the timelines, requirements and reporting detailed in, Appendix 1. **(R 336.1205(1)(a) & (3), 40 CFR 52.21(c) & (d), 40 CFR 60.48b(b))**

See Appendix 1 and 2

VII. REPORTING

NA

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 Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVBOILER#9	64.2	115.0	40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subparts A and Db, as they apply to EUBOILER#9. **(40 CFR 60 Subparts A and Db)**

**EUK2AMU
 EMISSION UNIT CONDITIONS**

DESCRIPTION

Natural gas Air Makeup Units (AMU) with a combined heat capacity of 106.5 MMBtu/hr

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	6.6 tpy*	12-month rolling time period as determined at the end of each calendar month	EUK2AMU	SC VI.2	R 336.1205, 40 CFR 52.21(a)(2)(iv)

* Established based on an emission factor of 50 lb/MMCF natural gas burned and the natural gas usage limit in SC II.1

II. MATERIAL LIMIT(S)

Material	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. Natural Gas	262.8MMCF/yr	12-month rolling time period as determined at the end of each calendar month	EUK2AMU	SC VI.1	R 336.1205(1)(a)

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

NA

VI. MONITORING/RECORDKEEPING

1. The permittee shall monitor and record, in a satisfactory manner, natural gas usage in EUK2AMU on a monthly and 12-month rolling time period basis. **(R 336.1205)**
2. The permittee shall calculate the total NOx emissions from EUK2AMU on a monthly and 12-month rolling time period basis. This calculation will be based upon the fuel usage and the emission factor of 50 lb/MMCF natural gas burned. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205)**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

EUCOOLINGTW1 EMISSION UNIT CONDITIONS
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DESCRIPTION

Utility Cooling Towers- 6,227 gallon per minute (gpm) maximum operating capacity for the three-cell system

Flexible Group ID: FGPROJECT2019

POLLUTION CONTROL EQUIPMENT

Drift eliminator

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EUCOOLINGTW1 if total dissolved solids (TDS) exceeds 860 ppmw. **(R 336.1205, R 336.1702, R 336.1910, 40 CFR 52.21(c) & (d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EUCOOLINGTW1 above a maximum operating capacity of 6,227 gpm across the three-cell system. **(R 336.1205, R 336.1910, 40 CFR 52.21(c) & (d))**
2. The permittee shall equip and maintain EUCOOLINGTW1 with drift eliminators that have a vendor-certified maximum drift rate of 0.001 percent or less. **(R 336.1901)**

V. TESTING/SAMPLING

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall not operate EUCOOLINGTW1 without continuously monitoring the TDS (as conductivity) of the cooling tower feed water and record the concentration once per shift. **(R 336.1205, R 336.1910, 40 CFR 52.21(c) & (d))**
2. The permittee shall maintain the vendor certification of the maximum drift rate for EUCOOLINGTW1 and make it available to the Department upon request. **(R 336.1901)**

VII. REPORTING

NA

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 Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVUTILCOOL1	160	84	40 CFR 52.21(c) & (d)
2. SVUTILCOOL2	160	84	40 CFR 52.21(c) & (d)
3. SVUTILCOOL3	160	84	40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

EUK2STARCH EMISSION UNIT CONDITIONS

DESCRIPTION

10,600 cubic feet silo, starch preparation and handling equipment, and starch application equipment. Cylindrical jacket with conical discharge, includes dust bin vent filter.

Flexible Group ID: FGPROJECT2019

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

1. There shall be no outdoor visible emissions from EUK2STARCH. **(R 336.1301, R 336.1331, 40 CFR 52.21(c) & (d))**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EUK2STARCH unless the bin filters on the silos are installed, maintained, and operated in a satisfactory manner. **(R 336.1205, R 336.1331, R 336.1910, 40 CFR 52.21(c) & (d))**
2. The permittee shall not operate EUK2STARCH unless a malfunction abatement plan (MAP) as described in Rule 911(2) is implemented and maintained. The MAP shall, at a minimum, meet the manufacturer's written instructions for operating and maintaining the boiler and emission control equipment and shall specify the following:
 - a) A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.
 - b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.
 - c) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.
 - d) A description of how emissions will be minimized during all startups, shutdowns and malfunctions.

If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 90 days after such an event occurs. The permittee shall also amend the MAP within 90 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. **(R 336.1911)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1201(3))

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1201(3))

1. The permittee shall maintain records of the inspections and replacements of the bin filters on the silos. (R 336.1205, R 336.1331, R 336.1910, 40 CFR 52.21(c) & (d))
2. The permittee shall observe and record a visible emissions survey during silo filling operations on a weekly basis, if environmental or operational conditions allow. If visible emissions are observed, the permittee shall immediately implement the MAP in SC IV.2. (R 336.1301, R 336.1331, 40 CFR 52.21(c) & (d))

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below:

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVK2STARCHSIL	40	80*	40 CFR 52.21(c) & (d)
*Horizontal stack exhaust			

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

FLEXIBLE GROUP SPECIAL CONDITIONS

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
FGK2MACHINE	2,400 tons per day, paperboard machine with in-line paperboard coating process. This emission unit includes the wet end process, steam heated drying cylinders, coating preparation and handling equipment, and curtain coater and drying ovens.	EUK2MACHINE, EUK2DRYER1, EUK2DRYER2, EUK2DRYER3, EUK2DRYER4, EUK2DRYER5, EUK2DRYER6, EUK2DRYER7, EUK2CALHEAT1, EUK2CALHEAT2
FGBOILERS10-11	Two 311 MMBtu/hr natural gas fired boilers used to heat steam for dryer and hot water to be used on the paper machine.	EUBOILER#10, EUBOILER#11
FGPROJECT2019	All new equipment being permitted in the 2019 project.	EUK2MACHINE, EUK2DRYER1, EUK2DRYER2, EUK2DRYER3, EUK2DRYER4, EUK2DRYER5, EUK2DRYER6, EUK2DRYER7, EU COOLING TW1, EUK2STARCH, EUBOILER#10, EUBOILER#11, EUK2CALHEAT1, EUK2CALHEAT2

**FGK2MACHINE
 EMISSION UNIT CONDITIONS**

DESCRIPTION

2,400 tons per day, paperboard machine with in-line paperboard coating process. This emission unit includes the wet end process, steam heated drying cylinders, coating preparation and handling equipment, and curtain coater and drying ovens.

Emission Unit: EUK2MACHINE, EUK2DRYER1, EUK2DRYER2, EUK2DRYER3, EUK2DRYER4, EUK2DRYER5, EUK2DRYER6, EUK2DRYER7, EUK2CALHEAT1, EUK2CALHEAT2

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. VOC	29.3 tpy ^a	12-month rolling time period as determined at the end of each calendar month	FGK2MACHINE	SC VI.2, SC VI.3. b-c, f-g	R 336.1702(a), R 336.1205(3)
2. NO _x	16.5 tpy ^b	12-month rolling time period as determined at the end of each calendar month	FGK2MACHINE	SC VI.4-5	R 336.1205
3. Acetaldehyde ¹	5,685 lb/year	12-month rolling time period as determined at the end of each calendar month	FGK2MACHINE	SC VI.2, SC VI.3. d-e, h-i	R 336.1225(3)
4. Acrylamide ¹	116 lb/year	12-month rolling time period as determined at the end of each calendar month	FGK2MACHINE	SC VI.2, SC VI.3. d-e, h-i	R 336.1225(3)

^a Established based on 0.0837 lb VOC per ton of coated paperboard produced plus 5.5 lb/MMCF of natural gas combusted. The annual amount of paperboard produced is limited in SC II.1 and the maximum heat capacities of all fuel combustion equipment in FGK2MACHINE was used.

^b Established based on an emission factor of 50 lb/MMCF of natural gas burned and total maximum heat capacities of all the fuel combusting equipment in FGK2MACHINE. Compliance will be demonstrated based upon actual material usage.

II. MATERIAL LIMIT(S)

Material	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. Coated Paperboard Produced ¹	657,000 tons/yr	12-month rolling time period as determined at the end of each calendar month	EUK2MACHINE	SC VI.3a	R 336.1205, R 336.1225, R 336.1702(a)

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall handle all VOC and/or HAP containing materials used in FGK2MACHINE in a manner to minimize the generation of fugitive emissions. The permittee shall keep containers covered at all times except when operator access is necessary. **(R 336.1225, R 336.1702(a))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall install the dryers in FGK2MACHINE with a maximum capacity not to exceed the heat inputs listed in the table below. **(R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.1702, R 336.1910)**

EUK2DRYER1	24.21 MMBtu/hr
EUK2DRYER2	5.41 MMBtu/hr
EUK2DRYER3	6.98 MMBtu/hr
EUK2DRYER4	7.38 MMBtu/hr
EUK2DRYER5	6.98 MMBtu/hr
EUK2DRYER6	6.98 MMBtu/hr
EUK2DRYER7	6.98 MMBtu/hr
EUK2CALHEAT1	5.46 MMBtu/hr
EUK2CALHEAT2	2.15 MMBtu/hr

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall verify the VOC content of any material used in FGK2MACHINE using federal Reference Test Method 24/24A pursuant to Rule 1040(5). Upon prior written approval by the AQD District Supervisor, the permittee may determine the VOC content from manufacturer's formulation data. If the Method 24/24A and the formulation values should differ, the permittee shall use the Method 24/24A results to determine compliance. **(R 336.1205, R 336.1702(a), R 336.2001, R 336.2003, R 336.2004)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the end of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring / recordkeeping special condition. **(R 336.1225, R 336.1702(a))**
2. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each material used in FGK2MACHINE, including the weight percent of each toxic air contaminant. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1225, R 336.1702(a))**
3. The permittee shall keep the following information on a monthly basis for EUK2MACHINE:
 - a) Tons of paper produced on a monthly and 12-month rolling time period basis.
 - b) Pounds or tons of each VOC containing material used and reclaimed.
 - c) VOC content (with water) of each material as applied.
 - d) Pounds or tons (with water) of each Acetaldehyde and Acrylamide containing material used and reclaimed.¹
 - e) Acetaldehyde and Acrylamide content (with water) in percent by weight of each material used.¹
 - f) VOC mass emission calculations determining the monthly emission rate in tons per calendar month using mass balance, or an alternative method acceptable to the AQD District Supervisor.
 - g) VOC mass emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month using mass balance, or an alternative method acceptable to the AQD District Supervisor.

- h) Acetaldehyde and Acrylamide mass emission calculations determining the monthly emission rate in pounds per calendar month using mass balance, or an alternative method acceptable to the AQD District Supervisor.¹
- i) Acetaldehyde and Acrylamide mass emission calculations determining the annual emission rate in pounds per 12-month rolling time period as determined at the end of each calendar month using mass balance, or an alternative method acceptable to the AQD District Supervisor.¹

The permittee shall keep the records in a format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1702(a), R 336.1225)**

- 4. The permittee shall keep a record of the amount of natural gas burned in FGK2MACHINE on a monthly and 12-month rolling time period basis. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205)**
- 5. The permittee shall calculate the total NO_x emissions from FGK2MACHINE on a monthly and 12-month rolling time period basis. The calculation shall be based upon the recorded amount of natural gas burned and 50 lb of NO_x/MMCF of natural gas burned. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205)**

VII. REPORTING

NA

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 Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVWETEND1	66	100	R 336.1225, 40 CFR 52.21(c) & (d)
2. SVWETEND2	66	100	R 336.1225, 40 CFR 52.21(c) & (d)
3. SVWETEND3	66	100	R 336.1225, 40 CFR 52.21(c) & (d)
4. SVWETEND4	48	100	R 336.1225, 40 CFR 52.21(c) & (d)
5. SVK2DRYERV1	44	100	R 336.1225, 40 CFR 52.21(c) & (d)
6. SVK2DRYERV2	20	110	R 336.1225, 40 CFR 52.21(c) & (d)
7. SVK2DRYERV3	20	110	R 336.1225, 40 CFR 52.21(c) & (d)
8. SVK2DRYERV4	25	110	R 336.1225, 40 CFR 52.21(c) & (d)
9. SVK2DRYERV5	20	110	R 336.1225, 40 CFR 52.21(c) & (d)
10. SVK2DRYERV6	20	110	R 336.1225, 40 CFR 52.21(c) & (d)
11. SVK2DRYERV7	20	110	R 336.1225, 40 CFR 52.21(c) & (d)
12. SVK2CALENDAR1	10	99	R 336.1225, 40 CFR 52.21(c) & (d)
13. SVK2CALENDAR2	8	99	R 336.1225, 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

**FGBOILERS10-11
 EMISSION UNIT CONDITIONS**

DESCRIPTION

Two 311 MMBtu/hr natural gas fired boiler used to heat steam for dryer and hot water to be used on the paper machine.

Emission Unit: EUBOILER#10, EUBOILER#11

POLLUTION CONTROL EQUIPMENT

Low-NOX Burners (LNB) and Flue Gas Recirculation (FGR)

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. NO _x	0.10 lb/MMBtu	30 day rolling average basis	Each boiler in FGBOILERS10-11.	SC VI.5 SC VI.6 SC VI.7	40 CFR 60.44b(a) (1)
2. NO _x	11.2 lbs/hr	Hourly	Each boiler in FGBOILERS10-11.	SC VI.6 SC VI.7	R 336.1205, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)
3. PM ₁₀ ^a	0.004 lb/MMBtu	Hourly	Each boiler in FGBOILERS10-11.	SC V.1	R 336.1331, R 336.2803, R 336.2804
4. PM _{2.5}	0.004 lb/MMBtu	Hourly	Each boiler in FGBOILERS10-11.	SC V.1	R 336.2803, R 336.2804

^a PM emissions restricted by PM₁₀ emission limit

II. MATERIAL LIMIT(S)

1. The permittee shall burn only pipeline quality natural gas in FGBOILERS10-11. (R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.1702, R 336.2803, R 336.2804, 40 CFR 52.21(a)(2)(iv), 40 CFR Part 60 Subpart Db)

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EUBOILER#10 or EUBOILER#11 unless a malfunction abatement plan (MAP) as described in Rule 911(2), has been submitted, and is implemented and maintained for the respective boiler. The MAP shall, at a minimum, meet the manufacturer's written instructions for operating and maintaining the boiler and emission control equipment and shall specify the following:
 - a) A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.
 - b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.

- c) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.
- d) A description of how emissions will be minimized during all startups, shutdowns and malfunctions

If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 90 days after such an event occurs. The permittee shall also amend the MAP within 90 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. **(R 336.1331, R 336.1910, R 336.1911, R 336.1912, R 336.2803, R 336.2804)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EUBOILER#10 or EUBOILER#11 unless each boiler and emission control equipment for the respective boiler is maintained and operated according to the manufacturer's instructions and the MAP in SC III.1. **(R 336.1331, R 336.1910, R 336.1911, 40 CFR 52.21(c) & (d))**
2. The permittee shall not install EUBOILER#10 or EUBOILER#11 with a heat capacity in excess of 311 MMBtu/hr per boiler. **(R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.1702, R 336.1910)**
3. The permittee shall install, calibrate, maintain, and operate in a satisfactory manner, devices to monitor and record the NO_x concentration, and oxygen (O₂) or carbon dioxide (CO₂), content of the exhaust gas from EUBOILER#10 and EUBOILER#11 on a continuous basis. The permittee shall install and operate the Continuous Emission Monitoring System (CEMS) to meet the timelines, requirements, and reporting detailed in Appendix 1. **(R 336.1205(1)(a) and (b), 40 CFR 60.48b(b), 40 CFR 60.49b(c))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall verify PM₁₀ and PM_{2.5} emission rates from FGBOILERS10-11 by testing at the owner's expense, in accordance with Department requirements once every five years from the date of the last test. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 51, Appendix M. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 30 days before testing of the time and place performance tests will be conducted. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **R 336.1205, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required records in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition. **(R 336.1205, R 336.1702)**
2. The permittee shall maintain records from the fuel supplier which certify that the gaseous fuel burned in FGBOILERS10-11 meets the definition of natural gas as defined in §60.41b and the applicable sulfur limit. **(R 336.1205, R 336.1224, R 336.1225, R 336.1702, 40 CFR Part 60 Subpart Db)**
3. The permittee shall maintain the manufacturer's written instructions for operating and maintaining each boiler in FGBOILERS10-11 and emission control equipment. The permittee shall maintain records of all

maintenance performed on the boiler and emission control equipment. **(R 336.1205, R 336.1910, 40 CFR Part 60 Subpart Db)**

4. The permittee shall maintain records of all information necessary for all notifications and reports as specified in these special conditions as well as that information necessary to demonstrate compliance with the emission limits of this permit. This information shall include, but shall not be limited to the following:
 - a. Compliance tests and any testing required under the special conditions of this permit;
 - b. Verification of heat input capacity required to show compliance with SC IV.3.**(R 336.1205(1), R 336.1224, R 336.1225, R 336.1301, R 336.1702(a), R 336.2803, R 336.2804, 40 CFR 52.21(a)(2)(iv), CFR Part 60 Subpart Db)**
5. The permittee shall perform all monitoring and recording of emissions and operating information as required to comply with the Federal Standards of Performance for New Stationary Sources as specified in 40 CFR, Part 60, Subparts A and Db. This includes the 30-day rolling NOx lb/MMBtu emission rates for EUBOILER#10 and EUBOILER#11. All required reporting shall be submitted to the District Supervisor in an acceptable format within 30 days following the end of the quarter in which the data were collected. **(40 CFR 60.49b)**
6. The permittee shall keep, in a satisfactory manner, records of the hourly, and 12 month rolling NOx emission rates for EUBOILER#10 and EUBOILER#11, as required by SC I.1, and I.2. The NOx emission rates required in SC I.1, and I.2 shall be updated and complete by the end of each calendar month. These emission rates shall be derived from the NOx emissions data recorded by the CEM and recorded fuel rates, if applicable, as described in Appendix 2. **(R 336.1205, 40 CFR 52.21(j))**
7. The permittee shall continuously monitor and record, in a satisfactory manner, the CEMS data needed to demonstrate compliance with SC 1.1 and I.2, including, but not limited to the NOx concentration and the O₂, or CO₂, concentrations from EUBOILER#10 and EUBOILER#11. The permittee shall operate each CEMS to meet the timelines, requirements and reporting detailed in, Appendix 1. **(R 336.1205(1)(a) & (3), 40 CFR 52.21(c) & (d), 40 CFR 60.48b(b))**

VII. REPORTING

NA

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 Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVBLR10	63	110	R 336.1225, R 336.2803, R 336.2804
2. SVBLR11	63	110	R 336.1225, R 336.2803, R 336.2804

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subparts A and Db, as they apply to FGBOILERS10-11. **(40 CFR Part 60 Subparts A & Db)**

Footnotes:

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

**FGPROJECT2019
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

All new equipment being permitted in the 2019 project.

Emission Unit: EUK2MACHINE, EUK2DRYER1, EUK2DRYER2, EUK2DRYER3, EUK2DRYER4, EUK2DRYER5, EUK2DRYER6, EUK2DRYER7, EUCOOLINGTW1, EUK2STARCH, EUEUBOILER#10, EUBOILER#11, EUK2CALHEAT1, EUK2CALHEAT2

POLLUTION CONTROL EQUIPMENT

There is a bin filter on the silo. The Boilers are equipped with Low-NO_x Burners (LNB) and Flue Gas Recirculation (FGR).

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate FGPROJECT2019 after Nuisance Minimization Plan for Odors is submitted unless the plan is implemented in accordance with its terms. The Nuisance Minimization Plan for Odors shall, at minimum, include the following:
 - a) Identification of the supervisory personnel responsible for overseeing the implementation of the plan,
 - b) An identification of the sources of potential nuisance odor issues and how the odors from those sources will be minimized and monitored,
 - c) A description of the items or conditions that shall be implemented as part of the plan,
 - d) The timeline for making any physical or operational changes and the frequency of any associated inspections or monitoring,
 - e) Proposed operation and data collection. Such data collection shall include the continued operation of the existing H2S Envirosuite stationary monitoring system for a minimum of twelve months following initial startup of any process equipment in FGPROJECT2019. The data collected by the permittee must be made available to the Department upon request.
 - f) A description of the corrective procedures or operational changes that shall be taken in the event of an elevated odor event.

After submission of the plan by the permittee, the AQD District Office Supervisor may request modifications to the plan. Within 30 days after a request by the AQD District Office Supervisor, the permittee shall submit proposed modifications to the plan for consideration by the Department. The permittee shall submit the Nuisance Minimization Plan for Odors and any amendments to the plan to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the Nuisance Minimization Plan for Odors or amendments to the plan shall be considered approved. **(R336.1901(b))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1201(3))

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1201(3))

NA

VII. REPORTING

- 1 The permittee shall notify the Department if a change in land use occurs for property classified as industrial or as a public roadway, where this classification was relied upon to demonstrate compliance with Rule 225(1). The permittee shall submit the notification to the AQD District Supervisor, within 30 days of the actual land use change. Within 60 days of the land use change, the permittee shall submit to the AQD District Supervisor a plan for complying with the requirements of Rule 225(1). The plan shall require compliance with Rule 225(1) no later than one year after the due date of the plan submittal. (R 336.1225(4))¹

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

APPENDIX 1 Monitoring Requirements

The following monitoring requirement procedures, methods, or specifications are detailed in Part A or the appropriate

NOx Monitoring

Continuous Emission Monitoring System (CEMS) and Predictive Emission Monitoring System (PEMS) Requirements

1. Within 60 days of completion of testing, the permittee shall submit to the AQD two copies of the final report demonstrating the CEMS/PEMS complies with the requirements of the corresponding Performance Specifications (PS) in the following table:

Pollutant	Applicable PS
NOx	2
CO ₂ /O ₂	3

2. The span value shall be 2.0 times the lowest emission standard or Flexible Group Special Conditions, or as specified in the federal regulations.
3. The CEMS shall be installed, calibrated, maintained, and operated in accordance with the procedures set forth in 40 CFR 60.13 and PS 2 and 3 of Appendix B to 40 CFR Part 60, or 75.10, or as detailed in an approved monitoring plan. If a PEMS is installed in lieu of a CEMS, the PEMS shall be installed, maintained, and operated in accordance with PS 16 of Appendix B to 40 CFR Part 60, as proposed or promulgated.
4. Each calendar quarter, the permittee shall perform the Quality Assurance Procedures of the CEMS set forth in Appendix F of 40 CFR Part 60 or 75.10, or as detailed in an approved monitoring plan. If a PEMS is installed in lieu of a CEMS, the permittee shall perform the Quality Assurance Procedures of the PEMS set forth in PS 16 of Appendix B to 40 CFR Part 60, as proposed or promulgated. Within 30 days following the end of each calendar quarter, the permittee shall submit the results to the AQD in the format of the data assessment report (Figure 1, Appendix F of 40 CFR Part 60).
5. In accordance with 40 CFR 60.7(c) and (d), the permittee shall submit two copies of an excess emission report (EER) and summary report in an acceptable format to the AQD, within 30 days following the end of each calendar quarter. The summary report shall follow the format of Figure 1 in 40 CFR 60.7(d). The EER shall include the following information:
 - a) A report of each exceedance above 0.10 lb/MMBtu based on a 30-day rolling average as determined at the end of each boiler operating day that EUBOILER#9, EUBOILER#10 or EUBOILER#11 operate. This includes the date, time, magnitude, cause, and corrective actions of, all occurrences during the reporting period;
 - b) A report of all periods of CEMS/PEMS downtime and corrective action;
 - c) A report of the total operating time during the reporting period;
 - d) A report of any periods that the CEMS/PEMS exceeds the instrument range;
 - e) If no exceedances or CEMS/PEMS downtime occurred during the reporting period, the permittee shall report that fact.
6. The permittee shall keep all monitoring data on file for a period of at least five years and make them available to the AQD upon request.

APPENDIX 2

The permittee may use the following calculations and methods or an alternative method, as approved by the district supervisor, for determining compliance with the emission limits referenced in this PTI.

EUBOILER#9

The permittee shall calculate the NO_x emission rate used for determining compliance with the emission limit in SC I.1 based on the methodologies required in the NSPS.

1. The Permittee shall monitor and record the total amount of each fuel consumed by EUBOILER#9 for each calendar day in MMSCF (million scf).
2. The permittee shall convert the fuel usage to a heat input value (MMBTU/day for each calendar day by utilizing AP-42, MAERS or the appropriate natural gas heating value (in MMBTU/MMSCF).
3. The permittee shall calculate the daily average pounds of NO_x emitted per million BTUs of heat input for EUBOILER#9 by dividing the total of the hourly lb/MMBTU by 24 hours per day.
4. The permittee shall calculate the 30-day rolling average pounds of NO_x emitted per million BTUs of heat input for EUBOILER#9 by dividing the total NO_x emissions of the previous 30 days` in pounds by the total heating value of fuel consumed in the previous 30 days in MMBtu.
5. The permittee shall calculate the pph NO_x emitted on an hourly basis directly from the hourly data collected by the CEMS.

EUBOILER#10 and EUBOILER#11

The permittee shall calculate the NO_x emission rate used for determining compliance with the emission limit in SC I.1 based on the methodologies required in the NSPS.

1. The Permittee shall monitor and record the total amount of each fuel consumed by each boiler in FGBOILERS10-11 for each calendar day in MMSCF (million scf).
2. The permittee shall convert the fuel usage to a heat input value (MMBTU/day for each calendar day by utilizing AP-42, MAERS or the appropriate natural gas heating value (in MMBTU/MMSCF).
3. The permittee shall calculate the 30-day rolling average pounds of NO_x emitted per million BTUs of heat input for each boiler in FGBOILERS10-11 by dividing the total NO_x emissions of the previous 30 days in pounds for each boiler by the total heating value of fuel consumed for that boiler in the previous 30 days in MMBtu.
5. The permittee shall calculate the pph NO_x emitted on an hourly basis for each boiler in FGBOILERS10-11 directly from the hourly data collected by the CEMS.
6. The 1-hour average NO_x emission rates measured by the continuous NO_x monitor shall be expressed in ng/J or lb/million BTU heat input and shall be used to calculate the average emission rates under 40 CFR 60.44b. The 1-hour averages shall be calculated using the data points required under 40 CFR 60.13(b). At least 2 data points must be used to calculate each 1-hour average. **(40 CFR 60.48b(d))**