

Statement of Basis

Tier I Operating Permit No. T1-2019.0036

Project ID 62266

Rathdrum Power, LLC

Rathdrum, Idaho

Facility ID 055-00045

Final

February 27, 2020

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Permit Writer

The purpose of this Statement of Basis is to set forth the legal and factual basis for the Tier I operating permit terms and conditions, including references to the applicable statutory or regulatory provisions for the terms and conditions, as required by IDAPA 58.01.01.362

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1. ACRONYMS, UNITS, AND CHEMICAL NOMENCLATURE

acfm	actual cubic feet per minute
ASTM	American Society for Testing and Materials
BACT	Best Available Control Technology
BMP	best management practices
Btu	British thermal unit
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CEMS	continuous emission monitoring systems
cfm	cubic feet per minute
CFR	Code of Federal Regulations
CI	compression ignition
CMS	continuous monitoring systems
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	CO ₂ equivalent emissions
COMS	continuous opacity monitoring systems
DEQ	Department of Environmental Quality
dscf	dry standard cubic feet
EI	Emissions Inventory
EPA	U.S. Environmental Protection Agency
ft	feet
°F	degrees fahrenheit
GHG	greenhouse gases
GE	General Electric
gph	gallons per hour
gpm	gallons per minute
gr	grains (1 lb = 7,000 grains)
HAP	hazardous air pollutants
HHV	higher heating value
hp	horsepower
HRSG	heat recovery system generator
hr/yr	hours per consecutive 12 calendar month period
ICE	internal combustion engines
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
iwg	inches of water gauge
km	kilometers
lb/hr	pounds per hour
m	meters
MACT	Maximum Achievable Control Technology
mg/dscm	milligrams per dry standard cubic meter
MMBtu	million British thermal units
MMscf	million standard cubic feet
MRRR	Monitoring, Recordkeeping and Reporting Requirements
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides
NSPS	New Source Performance Standards
O&M	operation and maintenance
O ₂	oxygen

PC	permit condition
PM	particulate matter
PM _{2.5}	particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers
PM ₁₀	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
ppm	parts per million
ppmvd	parts per million by volume on a dry basis
ppmw	parts per million by weight
PSD	Prevention of Significant Deterioration
psig	pounds per square inch gauge
PTC	permit to construct
PTE	potential to emit
PW	process weight rate
Rathdrum	Rathdrum Power LLC
RICE	reciprocating internal combustion engines
<i>Rules</i>	<i>Rules for the Control of Air Pollution in Idaho</i>
scf	standard cubic feet
SCR	Selective Catalytic Reduction
SIP	State Implementation Plan
SO ₂	sulfur dioxide
SO _x	sulfur oxides
T/day	tons per calendar day
T/hr	tons per hour
T/yr	tons per consecutive 12 calendar month period
T1	Tier I operating permit
TAP	toxic air pollutants
T-RACT	Toxic Air Pollutant Reasonably Available Control Technology
ULSD	ultra low sulfur diesel
U.S.C.	United States Code
VOC	volatile organic compound

2. INTRODUCTION AND APPLICABILITY

2.1 Rathdrum Power LLC (Rathdrum) is an electric power generation facility and is located at 9924 West Lancaster Road in Rathdrum, Idaho. The facility is not classified as a major facility, as defined by IDAPA 58.01.01.008.10.c, because it does not emit or have the potential to emit any criteria pollutant above the major source threshold of 100 tons-per-year. The facility is also not classified as a major facility, as defined by Subsection 008.10.a, because it does not emit or have the potential to emit any hazardous air pollutant above the major source thresholds of 10 tons-per-year for any single HAP and/or 25 tons-per-year for any combination of HAP. However, the Rathdrum Power facility meets the definition of a Tier I source as given by IDAPA 58.01.01.006.120.d since it is a Phase II acid rain source. The facility is a designated facility as defined in IDAPA 58.01.01.006.30 (fossil-fuel fired steam electric plant), but it is not subject to PSD permitting requirements because the facility's potential to emit of any criteria pollutant is less than 100 T/yr.

The application for a Tier I operating permit must contain a certification from Rathdrum as to its compliance status with all applicable requirements (IDAPA 58.01.01.314.09).

IDAPA 58.01.01.362 requires that as part of its review of the Tier I application, DEQ shall prepare a technical memorandum (i.e. statement of basis) that sets forth the legal and factual basis for the draft Tier I operating permit terms and conditions including reference to the applicable statutory provisions or the draft denial. This document provides the basis for the draft Tier I operating permit for Rathdrum.

The format of this Statement of Basis follows that of the permit with the exception of the facility's information discussed first followed by the scope, the applicable requirements and permit shield, and finally the general provisions.

Rathdrum Tier I operating permit is organized into sections. They are as follows:

Section 1 – Acronyms, Units, and Chemical Nomenclature

The acronyms, units, and chemical nomenclature used in the permit are defined in this section.

Section 2 - Tier I Operating Permit Scope

The scope describes this permitting action.

Section 3 - Facility-wide Conditions

The Facility-wide Conditions section contains the applicable requirements (permit conditions) that apply facility-wide. Where required, monitoring, recordkeeping and reporting requirements (MRRR) sufficient to assure compliance with a permit condition follows the permit condition.

Sections 4 through 7 – Emissions Units

The emissions unit-specific sections of the permit contain the applicable requirements that specifically apply to each regulated emissions unit. Some requirements that apply to an emissions unit (e.g. opacity limits) may be contained in the Facility-wide Conditions Section. As with the facility-wide conditions, monitoring, recordkeeping and reporting requirements (MRRR) sufficient to assure compliance with an applicable requirement follows the applicable requirement.

Section 8 – Title IV Acid Rain Permit for the General Electric Combustion Turbine

This section is the Title IV acid rain permit for the general electric combustion turbine.

Section 9 - Insignificant Activities

This section lists the units or activities that are insignificant on the basis of size or production rate as provided by the permittee.

Section 10 - General Provisions

The final section of the permit contains standard terms and conditions that apply to all major facilities subject to IDAPA 58.01.01.300. This section is the same for all Tier I facilities. The General Provisions have been reviewed by EPA and contain all terms and conditions required by IDAPA 58.01.01 et al as well as requirements from other air quality laws, rules and regulations. Each general provision has been paraphrased so it is more easily understood by the general public; however, there is no intent to alter the effect of the requirement. Should there be a discrepancy between a paraphrased general provision in this statement of basis and a rule or permit, the rule or permit shall govern.

3. FACILITY INFORMATION

3.1 Facility Description

Rathdrum is an electrical power generating facility and is located at 9924 W. Lancaster Road in Rathdrum, ID. The project includes one General Electric (GE) advanced gas turbine engine with supplemental firing capability in the form of “duct burners”, a cooling tower and an evaporative tower. The project operates in combined-cycle mode such that the hot turbine exhaust gases will be discharged to the heat recovery steam generator (HRSG) to create steam that will be used to drive the steam turbine. The turbine and duct burners are fired with natural gas only and emissions are exhausted through a 150-foot tall, 18-foot diameter stack. The project is designed to produce approximately 278 MW electricity at base load and 50 °F. The GE gas turbine will produce approximately 168 MW at base load and 50 °F; the HRSG is capable of generating approximately 90 MW without duct burner operation and 110 MW when the duct burner does operate. To minimize NO_x emissions, the GE gas turbine is equipped with dry low-NO_x combustion technology with guaranteed, uncontrolled NO_x emissions of 9 ppmvd. Within the HRSG, a selective catalytic reduction (SCR) system is installed to further control NO_x emissions and an oxidation catalyst is installed to control CO emissions (from both the turbine and duct burners). The steam turbine system also includes a condenser with a mechanical draft-cooling tower. An integrated, microprocessor-based distributed control system is installed for plant control, data acquisition, and data analysis; the OpFlex Advantage Cold Day Performance Software and the OpFlex Balance Autotune Software were installed in 2014, which will result in increased performance on days where the temperature is 50 degrees Fahrenheit or less.

3.2 Facility Permitting History

Tier I Operating Permit History - Previous 5-year permit term January 21, 2016 to February 2, 2020

The following information is the permitting history of this Tier I facility during the previous five-year permit term which was from January 21, 2016 to February 2, 2020. This information was derived from a review of the permit files available to DEQ. Permit status is noted as active and in effect (A) or superseded (S).

February 2, 2015	T1-2014.0032, Tier I renewal, Permit status (S)
January 21, 2016	T1-2014.0032, Tier I amendment, Permit status (A, will be S after the issuance of this permit).

Underlying Permit History - Includes every underlying permit issued to this facility

The following information is the comprehensive permitting history of all underlying applicable permits issued to this Tier I facility. This information was derived from a review of the permit files available to DEQ. Permit status is noted as active and in effect (A) or superseded (S).

January 31, 1995	P- 940134, PTC for a new combined cycle natural gas-fired turbine power generation facility, Permit status (S).
September 29, 1995	P-950175, Name change for the facility, Permit status (S).
October 10, 1997	055-00045, Reissuance of PTC No. 055-00045, Permit status (S).

October 29, 1999	P-990042, Modification to PTC No. 055-00045, Permit status (S).
October 12, 2004	P-020116, Revision of PTC No. 055-00045, Permit status (S).
October 22, 2014	P-2014.0014, Minor modification to PTC No. P-020116, Permit status (S).
January 21, 2016	P-2014.0014, Minor DEQ initiated revision to PTC No. P-2014.0014, Permit status (S).
February 27, 2020	P-2014.0014, PTC revision to incorporate an existing cooling and evaporative tower into an existing PTC, Permit status (A).

4. APPLICATION SCOPE AND APPLICATION CHRONOLOGY

4.1 Application Scope

This permit is the renewal of the facility's currently effective Tier I operating permit. This permit incorporates the requirements in PTC No. P-2014.0014 project 62317, issued February 27, 2020.

4.2 Application Chronology

July 15, 2019	DEQ received an application.
September 3, 2019	DEQ determined that the application was complete.
October 24, 2019	DEQ made available the draft permit and statement of basis for peer and regional office review.
November 1, 2019	DEQ made available the draft permit and statement of basis for applicant review.
November 18 – December 18, 2019	DEQ provided a public comment period on the proposed action.
January 9, 2020	DEQ provided the proposed permit and statement of basis for EPA review.
February 27, 2020	DEQ issued the final permit and statement of basis.

5. EMISSIONS UNITS, PROCESS DESCRIPTION(S), AND EMISSIONS INVENTORY

This section lists the emissions units, describes the production or manufacturing processes, and provides the emissions inventory for this facility. The information presented was provided by the applicant in its permit application. Also listed in this section are the insignificant activities based on size or production rate.

5.1 Process No. 1 – Gas Turbine and Duct Burners

Table 5.1 lists the emissions units and control devices associated with the gas turbine and duct burners.

Table 5.1 EMISSIONS UNITS, CONTROL DEVICE, AND DISCHARGE POINT INFORMATION

Emissions Unit Description	Control Device (if applicable)	Emission Point ID No.
Gas Turbine and Duct Firing	SCR system using ammonia injection to control NO _x emissions, and catalytic oxidation to control CO, VOC, and HAP emissions	Main Stack

Refer to section 3.1 Facility Description of the S.O.B. for a narrative description of the combined-cycle gas turbine regulated in this Tier I Operating Permit.

The gas turbine includes two air conditioning systems for controlling the temperature of the inlet air to the turbine. The inlet air heating system is used to warm cold, wet air, and the inlet air cooling system, or fogger, is used to cool hot air to simulate cold conditions.

5.2 Process No. 2 – Auxiliary Boiler and Fuel Heater

Table 5.2 lists the emissions units and control devices associated with the auxiliary boiler and fuel heater.

Table 5.2 EMISSIONS UNITS, CONTROL DEVICE, AND DISCHARGE POINT INFORMATION

Emissions Unit Description	Control Device (if applicable)	Emission Point ID No.
Auxiliary Boiler	Dry Low-NO _x Burners	Boiler Stack
Fuel Heater	Dry Low-NO _x Burners	Fuel Heater Stack

The auxiliary boiler, also referred to as the startup boiler, was manufactured by Vapor Power with a rated heat input of 21.5 MMBtu/hr. It provides steam to the steam-turbine gland seals during preheating and turbine startup operations and is equipped with low-NO_x burners. The boiler is fired exclusively on natural gas, and combustion gasses are exhausted through a 70-ft high, 4-ft diameter stack.

The fuel heater, also referred to as the gas heater, is an indirect water-bath heater, manufactured by NATCO with a rated input of 4 MMBtu/hr. The unit is used to heat a water and anti-freeze solution that heats the natural gas to 70 °F before it enters the main turbine. The heater is equipped with low-NO_x burners, fired exclusively on natural gas, and exhausts through a 20-ft high, 2-ft diameter stack.

5.3 Process No. 3 – Diesel-Fired Emergency Generator and Fir Pump

Table 5.3 lists the emissions units and control devices associated with the diesel-fired emergency generator and fire pump.

Table 5.3 EMISSIONS UNITS, CONTROL DEVICE, AND DISCHARGE POINT INFORMATION

Emissions Unit Description	Control Device (if applicable)	Emission Point ID No.
Diesel Generator	None	Generator's Vent
Diesel Fir Pump	None	Fir Pump's Vent

A diesel-fired, standby electric generator is used to provide vital power to devices needed to ensure the main turbine is protected on a complete loss of power to the plant during a plant shutdown. The generator is 550-hp.

A 185-hp, diesel-fired, emergency fire pump supplies pressurized water to the fire protection sprinkler systems.

Both the generator and fire pump are operated approximately 30 minutes each week for testing purposes.

5.4 Process No. 4 – Cooling and Evaporative Towers

Table 5.4 lists the emissions units and control devices associated with the cooling and evaporative towers.

Table 5.4 EMISSIONS UNITS, CONTROL DEVICE

Emissions Unit Description	Control Device (if applicable)
Colling Tower	<u>Drift Eliminators</u> Manufacturer: Brentwood Model: CF150Max Control Efficiency: 0.001%.
Evaporative Tower	Manufacturer: Marley Model: 453-202 Control Efficiency: 0.01%.

Both the cooling and evaporative towers are used in the electric power generation process at the facility and can operate up to 8,760 hours per year.

5.5 Title IV Acid Rain Permit for the General Electric Combustion Turbine

In accordance with IDAPA 58.01.01, Rules for the Control of Air Pollution in Idaho and Titles IV and V of the Clean Air Act, DEQ issues the acid rain permit pursuant to IDAPA 58.01.01.300.

5.6 Insignificant Emissions Units Based on Size or Production Rate

This section contains a list of units or activities that are insignificant on the basis of size or production rate. Units and activities listed in this section must be listed in the permit application. Table 5.45 lists the units and activities which have been determined to be insignificant on the basis of size or production rate. The regulatory authority for emissions units and activities that are insignificant on the basis of size or production rate is IDAPA 58.01.01.317.01.b.

Table 5.4 INSIGNIFICANT EMISSION UNITS AND REGULATORY AUTHORITY/JUSTIFICATION

Emissions Unit / Activity	Regulatory Authority / Justification
Portable Kerosene Space Heaters Qty (4) @ 350,000 Btu/hr each	IDAPA 58.01.01.317.01.b.i(18)
Propane Space Heater Qty (1) @ 150,000 Btu/hr	IDAPA 58.01.01.317.01.b.i(18)
Propane Chase Heater Qty (1) @ 200,000 Btu/hr	IDAPA 58.01.01.317.01.b.i(18)
LP Pressure Washer Qty (1) @ 200,000 Btu/hr	IDAPA 58.01.01.317.01.b.i(18)
Diesel Fire Pump Diesel Fuel Tank Qty (1) @ 300 Gallons	IDAPA 58.01.01.317.b.i(2)
Emergency Generator Diesel Fuel Tank Qty (1) @ 250 Gallons	IDAPA 58.01.01.317.01.b.i(2)

5.7 Emissions Inventory

Table 5.6 summarizes the emissions inventory for this major facility. All values are expressed in units of tons-per-year and represent the facility's potential to emit. Potential to emit is defined as the maximum capacity of a facility or stationary source to emit an air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the facility or source to emit an air pollutant, including air pollution control equipment and restrictions on hour of operation or on the type or amount of material combusted, stored or processed shall be treated as part of its design if the limitation or the effect it would have on emission is state or federally enforceable.

Listed below Table 5.6 are the references for the emission factors used to estimate the emissions. The documentation provided by the applicant for the emissions inventory and emission factors is provided as Appendix B of this statement of basis.

Table 5.5 EMISSIONS INVENTORY - POTENTIAL TO EMIT (T/yr)

Source Description	PM ₁₀ /PM _{2.5} T/yr	NO _x T/yr	SO ₂ T/yr	CO T/yr	VOC T/yr
Gas Turbine with Duct Burner	40.10	95.40	10.66	95.50	5.30
Auxiliary Boiler	0.08	0.80	0.006	0.80	0.02
Fuel Pre-Heater	0.20	1.60	0.01	1.60	0.04
Diesel-Fired Emergency Generator, 550-hp	0.07	0.90	0.06	0.20	0.08
Diesel-Fired Emergency Fire Pump, 185-hp	0.02	0.30	0.02	0.20	0.03
Cooling Tower	0.77	--	--	--	--
Evaporative Tower	0.18	--	--	--	--
Total Emissions	41.42	99.00	10.76	98.30	5.47

- Based on permitted levels and hours of operation for turbine, fuel pre-heater, duct burner, and auxiliary boiler of 8,000 hours, 8,000 hours, 2,927 hours, and 1,000 hours respectively. The hours of operation for the diesel emergency generator and diesel fire pump are both 500 hours.
- Based on The Climate Registry's 2013 Default Emission Factors, Table 12.1 (117 lb/MMBtu).
- Based on The Climate Registry's 2013 Default Emission Factors, Table 12.1 (163 lb/MMBtu).
- Lead emissions for fuel pre-heater, diesel emergency generator, and diesel fire pump using AP-42 emission factors.
- The uncontrolled HAP emissions are well below major source threshold.

6. EMISSIONS LIMITS AND MRRR

This section contains the applicable requirements for this T1 facility.

This section is divided into the following subsections.

- Acronyms, units, and chemical nomenclature
- Facility-Wide Conditions;
- Gas Turbine and Duct Burners Emissions Limits;
- Auxiliary Boiler and Fuel Heater Emissions Limits;
- Diesel Generator and Fire Pump Emissions Limits;
- Cooling and Evaporative Towers
- Title IV Acid Rain Permit for the General Electric Combustion Turbine;
- Insignificant Emissions Units Based on Size or Production Rate; and
- Tier I Operating Permit General Provisions.

MRRR

Monitoring, recordkeeping and reporting requirements (MRRR) are the means with which compliance with an applicable requirement is demonstrated. In this section, the applicable requirement (permit condition) is provided first followed by the MRRR. Should an applicable requirement not include sufficient MRRR to satisfy IDAPA 58.01.01.322.06, 07, and 08, then the permit must establish adequate monitoring, recordkeeping and reporting sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit (i.e. gap filling). In addition to the specific MRRR provided for each applicable requirement, generally applicable facility-wide conditions and general provisions may also be provided, such as performance testing, reporting, and certification requirements.

The legal and factual basis for each permit condition is provided for in this document. If a permit condition was changed due to facility draft comments or public comments, an explanation of the changes is provided.

State Enforceability

An applicable requirement that is not required by the federal CAA and has not been approved by EPA as a SIP-approved requirement is identified as a "State-only" requirement and is enforceable only under state law. State-only requirements are not enforceable by the EPA or citizens under the CAA. State-only requirements are identified in the permit within the citation of the legal authority for the permit condition.

Federal Enforceability

Unless identified as "State-only," all applicable requirements, including MRRR, are state and federally enforceable. It should be noted that while a violation of a MRRR is a violation of the permit, it is not necessarily a violation of the underlying applicable requirement (e.g. emissions limit).

To minimize the length of this document, the following permit conditions and MRRR have been paraphrased. Refer to the permit for the complete requirements.

6.1 Facility-Wide Conditions

Permit Condition 3.1 - Fugitive Dust

All reasonable precautions shall be taken to prevent PM from becoming airborne in accordance with IDAPA 58.01.01.650-651.

[IDAPA 58.01.01.650-651, 3/30/07]

MRRR (Permit Conditions 3.2 through 3.4)

- Monitor and maintain records of the frequency and the methods used to control fugitive dust emissions;
- Maintain records of all fugitive dust complaints received and the corrective action taken in response to the complaint; and

- Conduct facility-wide inspections of all sources of fugitive emissions. If any of the sources of fugitive dust are not being reasonably controlled, corrective action is required.
[IDAPA 58.01.01.322.06, 07, 08, 4/5/2000]

Permit Condition 3.5 - Odors

The permittee shall not allow, suffer, cause, or permit the emission of odorous gases, liquids, or solids to the atmosphere in such quantities as to cause air pollution.

[IDAPA 58.01.01.775-776 (State-only), 5/1/94]

MRRR (Permit Condition 3.6)

- Maintain records of all odor complaints received and the corrective action taken in response to the complaint; and
- Take appropriate corrective action if the complaint has merit, and log the date and corrective action taken.

[IDAPA 58.01.01.322.06, 07 (State only), 5/1/94]

Permit Condition 3.7 - Visible Emissions

The permittee shall not discharge any air pollutant to the atmosphere from any point of emission for a period or periods aggregating more than three minutes in any 60-minute period which is greater than 20% opacity as determined by procedures contained in IDAPA 58.01.01.625. These provisions shall not apply when the presence of uncombined water, nitrogen oxides, and/or chlorine gas is the only reason for the failure of the emission to comply with the requirements of this section.

[IDAPA 58.01.01.625, 4/5/00]

MRRR (Permit Condition 3.8 through 3.9)

- Conduct facility-wide inspections of all emissions units subject to the visible emissions standards (or rely on continuous opacity monitoring);
- If visible emissions are observed, take appropriate corrective action and/or perform a Method 9 opacity test;
- Maintain records of the results of each visible emissions inspection.

[IDAPA 58.01.01.322.06, 07, 5/1/94]

Permit Conditions 3.10 through 3.14 - Excess Emissions

The permittee shall comply with the procedures and requirements of IDAPA 58.01.01.130-136 for excess emissions. The provisions of IDAPA 58.01.01.130-136 shall govern in the event of conflicts between the excess emissions facility wide conditions and the regulations of IDAPA 58.01.01.130-136.

[IDAPA 58.01.01.130-136, 4/5/00]

MRRR (Permit Conditions 3.10 through 3.14)

- Take appropriate action to correct, reduce, and minimize emissions from excess emissions events;
- Prohibit excess emissions during any DEQ Atmospheric Stagnation Advisory or Wood Stove Curtailment Advisory; and
- Notify DEQ of each excess emissions events as soon as possible, including information regarding upset, breakdown, or safety events.
- Submit a report for each excess emissions event to DEQ; and
- Maintain records of each excess emissions event.

[IDAPA 58.01.01.130-136, 4/5/00]

Permit Condition 3.15 through 3.16 – Performance Testing

If performance testing is required, the permittee shall provide notice of intent to test to DEQ at least 15 days prior to the scheduled test or shorter time period as provided in a permit, order, consent decree, or by

DEQ approval. DEQ may, at its option, have an observer present at any emissions tests conducted on a source. DEQ requests such testing not be performed on weekends or state holidays.

All testing shall be conducted in accordance with the procedures in IDAPA 58.01.01.157. Without prior DEQ approval, any alternative testing is conducted solely at the permittee's risk. If the permittee fails to obtain prior written approval by DEQ for any testing deviations, DEQ may determine that the testing does not satisfy the testing requirements. Therefore, prior to conducting any performance test, the permittee is encouraged to submit in writing to DEQ, at least 30 days in advance, the following for approval:

- The type of method to be used;
- Any extenuating or unusual circumstances regarding the proposed test; and
- The proposed schedule for conducting and reporting the test.

[IDAPA 58.01.01.157, 4/5/00; IDAPA 58.01.01.322.06, 08.a, 09, 5/1/94]

MRRR (Permit Conditions 3.17 and 3.18)

The permittee shall submit compliance test report(s) to DEQ following testing.

[IDAPA 58.01.01.157, 4/5/00; IDAPA 58.01.01.322.06, 08.a, 09, 5/1/94]

Permit Condition 3.19 – Monitoring and Recordkeeping

The permittee shall maintain sufficient records to assure compliance with all of the terms and conditions of this operating permit. Records of monitoring information shall include, but not be limited to, the following: (a) the date, place, and times of sampling or measurements; (b) the date analyses were performed; (c) the company or entity that performed the analyses; (d) the analytical techniques or methods used; (e) the results of such analyses; and (f) the operating conditions existing at the time of sampling or measurement. All monitoring records and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes, but is not limited to, all calibration and maintenance records, all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. All records required to be maintained by this permit shall be made available in either hard copy or electronic format to DEQ representatives upon request.

[IDAPA 58.01.01.322.06, 07, 5/1/94]

MRRR

No specific monitoring is required for this facility-wide condition. As with all permit conditions, the permittee must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

Permit Condition 3.20 Reports and Certifications

This permit condition establishes generally applicable MRRR for submittal of reports, certifications, and notifications to DEQ and/or EPA as specified.

[IDAPA 58.01.01.322.08, 11, 5/1/94]

MRRR

No specific monitoring is required for this facility-wide condition. As with all permit conditions, the permittee must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

Permit Condition 3.21 – Open Burning

The permittee shall comply with the *Rules for Control of Open Burning*, IDAPA 58.01.01.600-623.

[IDAPA 58.01.01.600-623, 5/08/09]

MRRR

No specific monitoring is required for this facility-wide condition. As with all permit conditions, the permittee must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

Permit Condition 3.22 - Asbestos

The permittee shall comply with all applicable portions of 40 CFR 61, Subpart M when conducting any renovation or demolition activities at the facility.

[40 CFR 61, Subpart M]

MRRR

No specific monitoring is required for this facility-wide condition. As with all permit conditions, the permittee must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

Permit Condition 3.23 – Accidental Release Prevention

An owner or operator of a stationary source that has more than a threshold quantity of a regulated substance in a process, as determined under 40 CFR 68.115, shall comply with the requirements of the Chemical Accident Prevention Provisions at 40 CFR 68 no later than the latest of the following dates:

- Three years after the date on which a regulated substance present above a threshold quantity is first listed under 40 CFR 68.130.
- The date on which a regulated substance is first present above a threshold quantity in a process.

[40 CFR 68.10 (a)]

[40 CFR 68.215(a)(2); IDAPA 58.01.01.322.11, 4/6/05; 40 CFR 68.215(a)(ii)]

MRRR

No specific monitoring is required for this facility-wide condition. As with all permit conditions, the permittee must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

Permit Condition 3.24- Recycling and Emissions Reductions

The permittee shall comply with applicable standards for recycling and emissions reduction of refrigerants and their substitutes pursuant to 40 CFR 82, Subpart F, Recycling and Emissions Reduction.

[40 CFR 82, Subpart F]

MRRR

No specific monitoring is required for this facility-wide condition. As with all permit conditions, the permittee must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

Permit Condition 3.25 – PTC General Provisions

This facility is subject to PTC General Provisions and is therefore required to comply with them.

[PTC No. P-2014.0014 2/28/2020]

MRRR

No specific monitoring is required for this facility-wide condition. As with all permit conditions, the permittee must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

Permit Condition 3.26 and 3.27 – NSPS/NESHAP General Provisions

This facility is subject to NSPS 40 CFR 60 Subpart A – General Provisions and NESHAP 40 CFR 63 Subpart A General Provisions and is therefore required to comply with them.

[40 CFR 60, Subpart A; 40 CFR 63, Subpart A]

MRRR

No specific monitoring is required for this facility-wide condition. As with all permit conditions, the permittee must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

Permit Conditions 3.28 –Incorporation of Federal Requirements by Reference

Permit Condition 3.28 is new and is taken from the current Tier I operating permit template.

Unless expressly provided otherwise, any reference in this permit to any document identified in IDAPA 58.01.01.107.03 shall constitute the full incorporation into this permit of that document for the purposes of the reference, including any notes and appendices therein.

[IDAPA 58.01.01.107, 4/7/11]

MRRR

No specific monitoring is required for this facility-wide condition. As with all permit conditions, the permittee must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

6.2 Emissions Unit-Specific Emissions Limits and MRRR

Gas Turbine and Duct Burners

The following summarizes the limits and compliance methods and discusses any changes made to the existing Tier I operating permit. Additional analysis can also be found in the SOB for the Tier I operating permit issued on February 12, 2010. (2010AAG202), and the SOB for the Tier I operating permit issued on February 2, 2015 (2014AAG1842[v5]).

Permit Condition 4.1.1

NO_x emissions limits in permit condition 4.1.1 are taken from the underlying PTC issued on February 27, 2020.

MRR – (Permit Conditions 4.8, 4.9, 4.10, 4.11, 4.18, 4.21, 4.23, 4.24)

To demonstrate compliance with these limits, the underlying PTC has established adequate operating, monitoring and recordkeeping requirements. They are summarized as follows:

- Limit fuel type to natural gas only. (PC 4.8)
- Limit operating hours to 8,000 hr/yr for turbine and 2,927 hr/yr for the duct burners. Duct burner operating hours are changed from 2,000 hr/yr to 2,927 hr/yr as a result of the underlying PTC change. (PC 4.9)
- Use NO_x CEMS to monitor NO_x emissions. This is also a requirement under 40 CFR 75 as mentioned in the SOB of the existing Tier I operating permit. (PC 4.10)
- Monitor ammonia feed rate of the Selective Catalytic Reduction (SCR) unit which is used to reduce NO_x emissions. (PC 4.11)
- Monitor turbine and duct burners operating hours. (PC 4.18)
- Require to install, operate, and maintain SCR consistent with manufacturer's recommendations. (PC 4.21)
- Submit test protocols for NO_x CEMS certification/recertification tests. (PC 4.23)
- Report NO_x CEMS information. This is also a requirement under 40 CFR 75 as mentioned in the SOB of the existing Tier I operating permit. (PC 4.24)

Permit Condition 4.1.2

NOx emissions limit in Permit Condition 4.1.2 is taken from 40 CFR 60, Subpart GG because the turbine is subject to 40 CFR 60, Subpart GG; the limit is also in the underlying PTC issued on February 27, 2020.

MRRR – (Permit Conditions 4.8, 4.10, 4.16, 4.23, 4.25, 4.26 – 4.41)

To demonstrate compliance with the limit, the underlying PTC and the subpart have established adequate operating, monitoring and recordkeeping requirements. They are summarized as follows:

- Limit fuel type to natural gas only. (PC 4.8)
- Use NOx CEMS to monitor NOx emissions though it is optional under 40 CFR 60, Subpart GG. This is a requirement under 40 CFR 75 as mentioned in the SOB of the existing Tier I operating permit. (PC 4.10)
- Submit test protocols for NOx CEMS certification/recertification tests. (PC 4.23)
- Report NOx CEMS information. This is also a requirement under 40 CFR 75 as mentioned in the SOB of the existing Tier I operating permit. (PC 4.24)
- 40 CFR 60, Subpart GG specifies the monitoring and recordkeeping requirements that have been included in the underlying PTC. They are Permit Conditions 4.16 regarding source testing and Permit Condition 4.25 regarding excess emissions.
- The turbine is also subject to General Provisions of 40 CFR 60. They are Permit Conditions 4.26 to 4.41. EPA has revised General Provisions since the operating permit was renewed in 2010. The revised regulations are added to this renewal permit as Permit Condition 4.33 (g), (h), and (i).

Permit Condition 4.2

NOx emissions limit for the duct burners in Permit Condition 4.2 is taken from 40 CFR 60, Subpart Db because the duct burners are subject to 40 CFR 60, Subpart Db; the limit is also in the underlying PTC issued February 27, 2020 .

MRRR – (Permit Conditions 4.8, 4.10, 4.17, 4.20, 4.23, 4.24, 4.26-4.41)

To demonstrate compliance with the limit, the underlying PTC and 40 CFR 60 Subpart Db have established adequate operating, monitoring and recordkeeping requirements. They are summarized as follows:

- Limit fuel type to natural gas only. (PC 4.8)
- Use NOx CEMS to monitor NOx emissions because emissions from the duct burners are emitted from the same stack as the turbine. (PC 4.10)
- Submit test protocols for NOx CEMS certification/recertification tests. This is required for the turbine, and the emissions from the duct burners are emitted from the same stack as the turbine. (PC 4.23)
- Report NOx CEMS information. This is required for the turbine, and the emissions from the duct burners are emitted from the same stack as the turbine. (PC 4.24)
- 40 CFR 60, Subpart Dc specifies the monitoring and recordkeeping requirements that have been included in the underlying PTC. They are Permit Conditions 4.17 regarding source testing and Permit Condition 4.20 regarding fuel monitoring.
- The duct burners are also subject to General Provisions of 40 CFR 60. They are Permit Conditions 4.26 to 4.41. EPA has revised General Provisions since the operating permit was renewed in 2010. The revised regulations are added to this renewal permit as Permit Condition 4.33 (g), (h), and (i).

Permit Condition 4.3

Emission limits of CO, PM₁₀, SO₂, and VOC's from the gas turbine stack are taken from the underlying PTC issued on February 27, 2020.

MRRR – (Permit Conditions 4.7, 4.8, 4.9, 4.14, 4.15, 4.18, 4.19, and 4.22)

To demonstrate compliance with these limits, the underlying PTC has established adequate operating, monitoring and recordkeeping requirements. They are summarized as follows:

- Limit turbine fuel sulfur content, a fuel requirement from 40 CFR 60, Subpart GG. (PC 4.7)
- Limit fuel type to natural gas only. (PC 4.8)
- Limit operating hours to 8,000 hr/yr for the turbine and 2,927 hr/yr for the duct burners. (PC 4.9)
- Perform CO and PM₁₀ source testing. (PCs 4.14, 4.15)
- Monitor turbine and duct burners operating hours. (PC 4.18)
- Monitor fuel sulfur content, a requirement from 40 CFR 60, Subpart GG. (PC 4.19)
- Require to install, operate, and maintain catalytic oxidation consistent with manufacturer's recommendations. Catalytic oxidation is for control of CO and VOC. (PC 4.22)

Permit Condition 4.4

Emissions limits of formaldehyde, acetaldehyde, benzene, and ammonia from the gas turbine stack are taken from the underlying PTC issued on February 27, 2020. They are state-only requirements.

MRRR – (Permit Conditions 4.8, 4.9, 4.11, 4.12, 4.13, and 4.18)

To demonstrate compliance with these limits, the underlying PTC has established adequate operating, monitoring and recordkeeping requirements. They are summarized as follows:

- Limit fuel type to natural gas only. (PC 4.8)
- Limit operating hours to 8,000 hr/yr for the turbine and 2,927 hr/yr for the duct burners. (PC 4.9)
- Monitor ammonia feed rate. (PC 4.11)
- Monitor ammonia slip for ammonia limit compliance. (PC 4.12)
- Perform ammonia source testing for ammonia limit compliance. (PC 4.13)
- Monitor turbine and duct burner operating hours. (PC 4.18)

Permit Condition 4.5

PM grain loading standard for the duct burners is taken from IDAPA 58.01.01.676. It is an applicable requirement for Tier I operating permit.

MRRR - (Permit Condition 4.8)

To demonstrate compliance with the limit, the underlying PTC has established adequate operating, monitoring and recordkeeping requirements. The duct burners are limited to burn natural gas only.

Permit Condition 4.7

Fuel sulfur content limit for the turbine is taken from 40 CFR 60, Subpart GG because the turbine is subject to 40 CFR 60, Subpart GG. The limit is also included in the underlying PTC issued on February 27, 2020.

MRRR - (Permit Condition 4.16, 4.19, 4.25, and 4.26 – 4.41)

To demonstrate compliance with the limit, 40 CFR 60, Subpart GG has established adequate operating, monitoring and recordkeeping requirements.

They are summarized as follows:

- Perform source testing if required. (PC 4.16)
- Monitor fuel sulfur content. (PC 4.19)
- Report turbine excess emissions. (PC 4.25)
- Comply with General Provisions of 40 CFR 60. (PC 4.26-4.41)

Auxiliary Boiler and Fuel Heater

The following summarizes the limits and compliance methods and discusses any changes made to the existing Tier I operating permit. Additional analysis can also be found in the SOB for the Tier I operating permit issued on 2/12/ 2010. (2010AAG202), and the SOB for the Tier I operating permit issues on February 2, 2015 (2014AAG1842[v5]).

Permit Condition 5.1

Emissions limits of CO, NO_x, PM₁₀, SO₂, and VOCs from the auxiliary boiler and the fuel heater are taken from the underlying PTC issued on February 27, 2020.

MRRR – (Permit Conditions 5.4, 5.5, 5.6)

To demonstrate compliance with these limits, the underlying PTC has established adequate operating, monitoring and recordkeeping requirements. They are summarized as follows:

- Limit fuel type to natural gas only. (PC 5.4)
- Limit the annual operating hours for the auxiliary boiler and fuel heater. The annual operating hours for the auxiliary boiler are changed from 5,000 hr/yr to 1,000 hr/yr as a result of the changes of the underlying PTC (PC 5.5).
- Monitor operating hours for the auxiliary boiler and fuel heater. (PC 5.6)

Permit Condition 5.3

PM grain loading standard for the duct burners is taken from IDAPA 58.01.01.676. It is an applicable requirement for Tier I operating permit.

MRRR – (Permit Condition 5.4)

To demonstrate compliance with the limit, the underlying PTC has established adequate operating, monitoring and recordkeeping requirements. The auxiliary boiler and the fuel heater are limited to burn natural gas only.

Permit Condition 5.7

Fuel monitoring requirement for the auxiliary boiler is taken from 40 CFR 60, Subpart Dc because the auxiliary boiler is subject to 40 CFR 60, Subpart Dc.

MRRR – (Permit Condition 5.7)

The MRRR is specified in Permit Condition 5.7

Diesel-Fired Emergency Generator and Fire Pump

Permit Condition 6.1

The operating hour limits for the diesel generator and diesel fire pump are taken from the underlying PTC issued on February 27, 2020.

MRRR – (Permit Condition 6.3)

To demonstrate compliance with these limits, the underlying PTC has established monitoring and recordkeeping requirements that are in PC 6.3.

Permit Condition 6.2

Fuel sulfur content requirements are from IDAPA 58.01.01.728. They are applicable requirement for the Tier I operating permit. This permit condition will be obsolete once the emergency generators start using fuels required by 40 CFR 63.6604(b).

This permit condition is obsolete, the facility has switched to only fuels required by 40 CFR 63.6604(b).

MRRR – (Permit Condition 6.4)

To demonstrate compliance with these limits, the underlying PTC has established monitoring and recordkeeping requirements that are in PC 6.4.

This monitoring and recordkeeping requirement is obsolete as permit condition 6.2 is obsolete, the facility has switched to only fuels required by 40 CFR 63.6604(b).

Permit Conditions 6.5-6.15

The two generators are subject to the requirements in 40 CFR 63, Subpart ZZZZ. They are applicable requirements and included in the permit.

The facility submitted the federal regulation review for 40 CFR 63, Subpart ZZZZ on 11/14/2014. DEQ staff reviewed and revised the analysis, and the analysis is included in Appendix A of the SOB for Tier I operating permit issues February 2, 2015 (2014AAG1456[v3]).

Cooling and Evaporative Towers

Permit Condition 7.1

Set the PM_{2.5/10} emission limits in T/yr for the cooling tower and the evaporative tower.

MRRR – (Permit Condition 7.5 and 7.6)

To demonstrate compliance with these limits, the underlying PTC has established monitoring and recordkeeping requirements that are in Permit condition 2.14 and 2.15 of the underlying PTC.

Permit Condition 7.2

Sets the opacity limit for the emissions from the cooling and evaporative tower.

MRRR

No specific monitoring is required for this facility-wide condition. As with all permit conditions, the permittee must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

Permit Condition 7.3

The drift eliminator control system and its associated control efficiency, maximum total dissolved solids, and the circulating flow rate are taken from the underlying PTC issued on February 27, 2020.

MRRR – (Permit Condition 7.5)

To demonstrate compliance with these limits, the underlying PTC has established monitoring and recordkeeping requirements that are in PC 2.14 of the underlying PTC.

Permit Condition 7.4

The drift eliminator control system and its associated control efficiency, maximum total dissolved solids, and the circulating flow rate are taken from the underlying PTC issued on February 27, 2020.

MRRR – (Permit Condition 7.6)

To demonstrate compliance with these limits, the underlying PTC has established monitoring and recordkeeping requirements that are in PC 2.15 of the underlying PTC.

6.3 General Provisions

Unless expressly stated, there are no MRRR for the general provisions.

General Compliance, Duty to Comply

The permittee must comply with the terms and conditions of the permit.

[IDAPA 58.01.01.322.15.a, 5/1/94; 40 CFR 70.6(a)(6)(i)]

General Compliance, Need to Halt or Reduce Activity Not a Defense

The permittee cannot use the fact that it would have been necessary to halt or reduce an activity as a defense in an enforcement action.

[IDAPA 58.01.01.322.15.b, 5/1/94; 40 CFR 70.6(a)(6)(ii)]

General Compliance, Duty to Supplement or Correct Application

The permittee must promptly submit such supplementary facts or corrected information upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application. The permittee must also provide information as necessary to address any new requirements that become applicable after the date a complete application has been filed but prior to the release of a draft permit.

[IDAPA 58.01.01.315.01, 5/1/94; 40 CFR 70.5(b)]

Reopening, Additional Requirements, Material Mistakes, Etc.

This term lists the instances when the permit must be reopened and revised, including times when additional requirements become applicable, when the permit contains mistakes, or when revision or revocation is necessary to assure compliance with applicable requirements.

[IDAPA 58.01.01.322.15.c, 5/1/94; IDAPA 58.01.01.386, 3/19/99; 40 CFR 70.7(f)(1), (2); 40 CFR 70.6(a)(6)(iii)]

Reopening, Permitting Actions

This term discusses modification, revocation, reopening, and/or reissuance of the permit for cause. If the permittee files a request to modify, revoke, reissue, or terminate the permit, the request does not stay any permit condition, nor does notification of planned changes or anticipated noncompliance.

[IDAPA 58.01.01.322.15.d, 5/1/94; 40 CFR 70.6(a)(6)(iii)]

Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege.

[IDAPA 58.01.01.322.15.e, 5/1/94; 40 CFR 70.6(a)(6)(iv)]

Information Requests

The permittee must furnish, within a reasonable time to DEQ, any information, including records required by the permit, that is requested in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit.

[Idaho Code §39-108; IDAPA 58.01.01.122, 4/5/00; IDAPA 58.01.01.322.15.f, 4/5/00; 40 CFR 70.6(a)(6)(v)]

Information Requests, Confidential Business Information

Upon request, the permittee must furnish to DEQ copies of records required to be kept by this permit. For information claimed to be confidential, the permittee may furnish such records along with a claim of confidentiality in accordance with Idaho Code §9-342A and applicable implementing regulations including IDAPA 58.01.01.128.

[IDAPA 58.01.01.322.15.g, 5/1/94; IDAPA 58.01.01.128, 4/5/00; 40 CFR 70.6(a)(6)(v)]

Severability

If any provision of the permit is held to be invalid, all unaffected provisions of the permit will remain in effect and enforceable.

[IDAPA 58.01.01.322.15.h, 5/1/94; 40 CFR 70.6(a)(5)]

Changes Requiring Permit Revision or Notice

The permittee may not commence construction or modification of any stationary source, facility, major facility, or major modification without first obtaining all necessary permits to construct or an approval under IDAPA 58.01.01.213, or complying with IDAPA 58.01.01.220 through 223. The permittee must comply with IDAPA 58.01.01.380 through 386 as applicable.

[IDAPA 58.01.01.200-223, 4/2/08; IDAPA 58.01.01.322.15.i, 3/19/99; IDAPA 58.01.01.380-386, 7/1/02; 40 CFR 70.4(b)(12), (14), (15), and 70.7(d), (e)]

Changes that are not addressed or prohibited by the Tier I operating permit require a Tier I operating permit revision if such changes are subject to any requirement under Title IV of the CAA, 42 U.S.C. Section 7651 through 7651c, or are modifications under Title I of the CAA, 42 U.S.C. Section 7401 through 7515. Administrative amendments (IDAPA 58.01.01.381), minor permit modifications (IDAPA 58.01.01.383), and significant permit modifications (IDAPA 58.01.01.382) require a revision to the Tier I operating permit. IDAPA 58.01.01.502(b)(10) changes are authorized in accordance with IDAPA 58.01.01.384. Off permit changes and required notice are authorized in accordance with IDAPA 58.01.01.385.

[IDAPA 58.01.01.381-385, 7/1/02; IDAPA 58.01.01.209.05, 4/11/06; 40 CFR 70.4(b)(14) and (15)]

Federal and State Enforceability

All permit conditions are federally enforceable unless specified in the permit as a state or local only requirement. State and local only requirements are not required under the CAA and are not enforceable by EPA or by citizens.

[IDAPA 58.01.01.322.15.j, 5/1/94; IDAPA 58.01.01.322.15.k, 3/23/98; Idaho Code §39-108; 40 CFR 70.6(b)(1), (2)]

Inspection and Entry

Upon presentation of credentials, the facility shall allow DEQ or an authorized representative of DEQ to do the following:

- Enter upon the permittee's premises where a Tier I source is located or emissions related activity is conducted, or where records are kept under conditions of this permit;
- Have access to and copy, at reasonable times, any records that are kept under the conditions of this permit;
- Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
- As authorized by the Idaho Environmental Protection and Health Act, sample or monitor, at reasonable times, substances or parameters for the purpose of determining or ensuring compliance with this permit or applicable requirements.

[Idaho Code §39-108; IDAPA 58.01.01.322.15.l, 5/1/94; 40 CFR 70.6(c)(2)]

New Applicable Requirements

The permittee must continue to comply with all applicable requirements and must comply with new requirements on a timely basis.

[IDAPA 58.01.01.322.10, 4/5/00; IDAPA 58.01.01.314.10.a.ii, 5/1/94; 40 CFR 70.6(c)(3) citing 70.5(c)(8)]

Fees

The owner or operator of a Tier I source shall pay annual registration fees to DEQ in accordance with IDAPA 58.01.01.387 through IDAPA 58.01.01.397.

[IDAPA 58.01.01.387, 4/2/03; 40 CFR 70.6(a)(7)]

Certification

All documents submitted to DEQ shall be certified in accordance with IDAPA 58.01.01.123 and comply with IDAPA 58.01.01.124.

[IDAPA 58.01.01.322.15.o, 5/1/94; 40 CFR 70.6(a)(3)(iii)(A); 40 CFR 70.5(d)]

Renewal

The permittee shall submit an application to DEQ for a renewal of this permit at least six months before, but no earlier than 18 months before, the expiration date of this operating permit. To ensure that the term of the operating permit does not expire before the permit is renewed, the owner or operator is encouraged to submit a renewal application nine months prior to the date of expiration.

[IDAPA 58.01.01.313.03, 4/5/00; 40 CFR 70.5(a)(1)(iii)]

If a timely and complete application for a Tier I operating permit renewal is submitted, but DEQ fails to issue or deny the renewal permit before the end of the term of this permit, then all the terms and conditions of this permit including any permit shield that may have been granted pursuant to IDAPA 58.01.01.325 shall remain in effect until the renewal permit has been issued or denied.

[IDAPA 58.01.01.322.15.p, 5/1/94; 40 CFR 70.7(b)]

Permit Shield

Compliance with the terms and conditions of the Tier I operating permit, including those applicable to all alternative operating scenarios and trading scenarios, shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that:

- Such applicable requirements are included and are specifically identified in the Tier I operating permit; or
 - DEQ has determined that other requirements specifically identified are not applicable and all of the criteria set forth in IDAPA 58.01.01.325.01(b) have been met.
- The permit shield shall apply to permit revisions made in accordance with IDAPA 58.01.01.381.04 (administrative amendments incorporating the terms of a permit to construct), IDAPA 58.01.01.382.04 (significant modifications), and IDAPA 58.01.01.384.03 (trading under an emissions cap).
- Nothing in this permit shall alter or affect the following:
 - Any administrative authority or judicial remedy available to prevent or terminate emergencies or imminent and substantial dangers;
 - The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
 - The applicable requirements of the acid rain program, consistent with 42 U.S.C. Section 7651(g)(a); and
 - The ability of EPA to obtain information from a source pursuant to Section 114 of the CAA; or the ability of DEQ to obtain information from a source pursuant to Idaho Code §39-108 and IDAPA 58.01.01.122.

[Idaho Code §39-108 and 112; IDAPA 58.01.01.122, 4/5/00;
IDAPA 58.01.01.322.15.m, 325.01, 5/1/94; IDAPA 58.01.01.325.02, 3/19/99;
IDAPA 58.01.01.381.04, 382.04, 383.05, 384.03, 385.03, 3/19/99; 40 CFR 70.6(f)]

Compliance Schedule and Progress Reports

- For each applicable requirement for which the source is not in compliance, the permittee shall comply with the compliance schedule incorporated in this permit.
- For each applicable requirement that will become effective during the term of this permit and that provides a detailed compliance schedule, the permittee shall comply with such requirements in accordance with the detailed schedule.
- For each applicable requirement that will become effective during the term of this permit that does not contain a more detailed schedule, the permittee shall meet such requirements on a timely basis.
- For each applicable requirement with which the permittee is in compliance, the permittee shall continue to comply with such requirements.

Periodic Compliance Certification

The permittee shall submit compliance certifications during the term of the permit for each emissions unit to DEQ and the EPA as specified.

- Compliance certifications for all emissions units shall be submitted annually unless otherwise specified; and
- All original compliance certifications shall be submitted to DEQ and a copy of all compliance certifications shall be submitted to the EPA.

[IDAPA 58.01.01.322.11, 4/6/05; 40 CFR 70.6(c)(5)(iii) as amended,
62 Fed. Reg. 54900, 54946 (10/22/97); 40 CFR 70.6(c)(5)(iv)]

False Statements

The permittee may not make any false statement, representation, or certification in any form, notice, or report required under this permit, or any applicable rule or order in force pursuant thereto.

[IDAPA 58.01.01.125, 3/23/98]

No Tampering

The permittee may not render inaccurate any monitoring device or method required under this permit or any applicable rule or order in force pursuant thereto.

[IDAPA 58.01.01.126, 3/23/98]

Semiannual Monitoring Reports.

In addition to all applicable reporting requirements identified in this permit, the permittee shall submit reports of any required monitoring at least every six months as specified.

[IDAPA 58.01.01.322.15.q, 3/23/98; IDAPA 58.01.01.322.08.c, 4/5/00; 40 CFR 70.6(a)(3)(iii)]

Reporting Deviations and Excess Emissions

Each and every applicable requirement, including MRRR, is subject to prompt deviation reporting. Deviations due to excess emissions must be reported in accordance Sections 130-136. All instances of deviation from Tier I operating permit requirements must be included in the deviation reports. The reports must describe the probable cause of the deviation and any corrective action or preventative measures taken. Deviation reports must be submitted at least every six months unless the permit specifies a different time period as required by IDAPA 58.01.01.322.08.c. Examples of deviations include, but are not limited to, the following:

- Any situation in which an emissions unit fails to meet a permit term or condition.
- Emission control device does not meet a required operating condition.
- Observations or collected data that demonstrate noncompliance with an emissions standard.
- Failure to comply with a permit term that requires a report.

[IDAPA 58.01.01.322.15.q, 3/23/98; IDAPA 58.01.01.135, 4/11/06; 40 CFR 70.6(a)(3)(iii)]

Permit Revision Not Required, Emissions Trading

No permit revision will be required, under any approved, economic incentives, marketable permits, emissions trading, and other similar programs or processes, for changes that are provided for in the permit.

[IDAPA 58.01.01.322.05.b, 4/5/00; 40 CFR 70.6(a)(8)]

Emergency

In accordance with IDAPA 58.01.01.332, an "emergency" as defined in IDAPA 58.01.01.008, constitutes an affirmative defense to an action brought for noncompliance with such technology-based emissions limitation if the conditions of IDAPA 58.01.01.332.02 are met.

7. REGULATORY REVIEW

7.1 Attainment Designation (40 CFR 81.313)

The facility is located in Kootenai which is designated as attainment or unclassifiable for PM₁₀, PM_{2.5}, CO, NO₂, SO_x, and Ozone. Reference 40 CFR 81.313.

7.2 Title V Classification (IDAPA 58.01.01.300, 40 CFR Part 70)

The facility is not classified as a major source in accordance with IDAPA 58.01.01.008 for Tier I permitting purposes. Also, the facility is not a major source as defined in IDAPA 58.01.01.006. However, Rathdrum meets the definition of a Tier I source as given by IDAPA 58.01.01.006.120 because it is a Phase II acid rain source.

Rathdrum is classified as a synthetic minor source that emits or has the potential to emit at or above 80% of the Title V major source threshold.

7.3 PSD Classification (40 CFR 52.21)

The facility is designated facility as defined in IDAPA 58.01.01.006.30 (fossil-fuel fired steam electric plant), but it is not subject to PSD permitting requirements because the facility's potential to emit is less than 100 T/yr.

7.4 NSPS Applicability (40 CFR 60)

40 CFR 60 Subpart GG, Standards of Performance for Stationary Gas Turbines. This subpart applies to the general electric gas turbine.

40 CFR 60 Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units. This subpart applies to the duct burners.

40 CFR 60 Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units. This subpart applies to the Vapor Power auxiliary boiler with a rated heat input of 21.5 MMBtu/hr.

40 CFR 60 Subpart A - General Provisions

The subpart in 40 CFR 60 that does not apply to Rathdrum:

40 CFR 60 Subpart IIII, Standards of Performance for stationary Compression Ignition Internal Combustion Engines.

The model year for the 550 hp diesel-fired emergency engine generator and the diesel-fired pump at the facility is earlier than 2007, therefore these sources are not subject to 40 CFR 60 Subpart IIII.

Additional information for NSPS can be found in the SOB for the existing operating permit issued on 2/12/2010. (2010AAG202)

7.5 NESHAP Applicability (40 CFR 61)

Rathdrum facility is not in any of the applicable source categories subject to regulation under 40 CFR 61.

7.6 MACT Applicability (40 CFR 63)

The subpart in 40 CFR 63 that applies to Rathdrum is as follows:

40 CFR 63 Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE).

The two emergency generators are subject to 40 CFR 63 Subpart ZZZZ. Detailed analysis of the subpart can be found in Appendix A of the SOB for the Tier I operating permit issued on February 2, 2015 (2014AAG1842[v5]).

The subpart in 40 CFR 63 that doesn't apply to Rathdrum:

40 CFR 63 Subpart JJJJJ—National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources

Rathdrum's boiler is fired by natural gas. In accordance with 40 CFR 63.11195, the boiler is not subject to 40 CFR 63 Subpart JJJJJ.

7.7 CAM Applicability (40 CFR 64)

Rathdrum facility is not classified as a major facility in accordance with IDAPA 58.01.01.008 for Tier I permitting purposes. Therefore, CAM is not applicable to the facility in accordance with 40 CFR 64.2(a).

7.8 Acid Rain Permit (40 CFR 72-75)

The following is taken from the SOB for the Tier I operating permit issued on 2/12/2010.

Rathdrum meets the definition of a Tier I source as given by IDAPA 58.01.01.006.120.d since it is a Phase II acid rain sources. Therefore, the facility is subject to the acid rain and the Title V permit contains an acid rain permit for the general electric combustion turbine. The following is the Title IV acid rain emissions unit description, permit requirements, and compliance demonstrations.

Emissions Unit Description: Refer to the turbine and duct burner descriptions provided in the permit. Rathdrum is an affected unit under 40 CFR 72.6(a)(3)(i); therefore, is subject to the acid rain program.

Permit Requirement – Acid Rain Permit Contents, 40 CFR 72.50: The requirements for an acid rain permit are listed in 40 CFR 72.50. The permit must contain the following: 1) all elements required for a complete acid rain permit application under 72.31, as approved or adjusted by the permitting authority; 2) the applicable acid rain emissions limitation for SO₂; 3) the applicable acid rain emissions limitation for NO_x; and 4) each acid rain permit is deemed to incorporate the definitions of terms under 72.2.

Compliance Demonstration: Compliance requirements are listed in the acid rain permit application as included in the Tier I operating permit. Compliance with these requirements will assure compliance with the acid rain program requirements.

Permit Requirement – SO₂ and NO_x Allowances, 40 CFR 73.2, 76.1: Rathdrum is subject to the provisions of Part 73 for SO₂ since it is an affected source pursuant to 72.6(a)(3)(i). The facility does not contain an affected source pursuant to 76.1 since coal is not used for fuel, therefore, it is not subject to the provisions of Part 76 for NO_x.

Compliance Demonstration: Compliance with the requirements of Part 73 is accomplished by complying with the requirements listed in the acid rain permit application. The application requirements are included as part of the acid rain permit as required by 72.50(a)(1). Compliance with the application requirements will assure compliance with the acid rain program requirements.

8. PUBLIC COMMENT

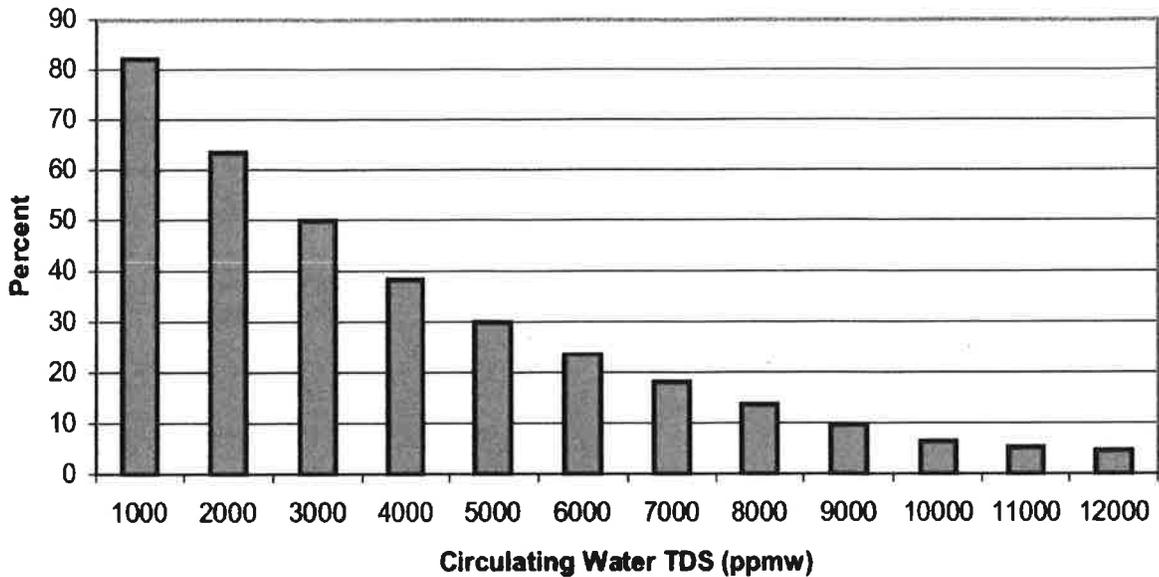
As required by IDAPA 58.01.01.364, a public comment period was made available to the public from November 18, 2019 to December 18, 2019. During this time, comments WERE submitted in response to DEQ's proposed action. A response to public comments document has been crafted by DEQ based on comments submitted during the public comment period. That document is part of the final permit package for this permitting action.

9. EPA REVIEW OF PROPOSED PERMIT

As required by IDAPA 58.01.01.366, DEQ provided the proposed permit to EPA Region 10 for its review and comment on December 19, 2019, via email.

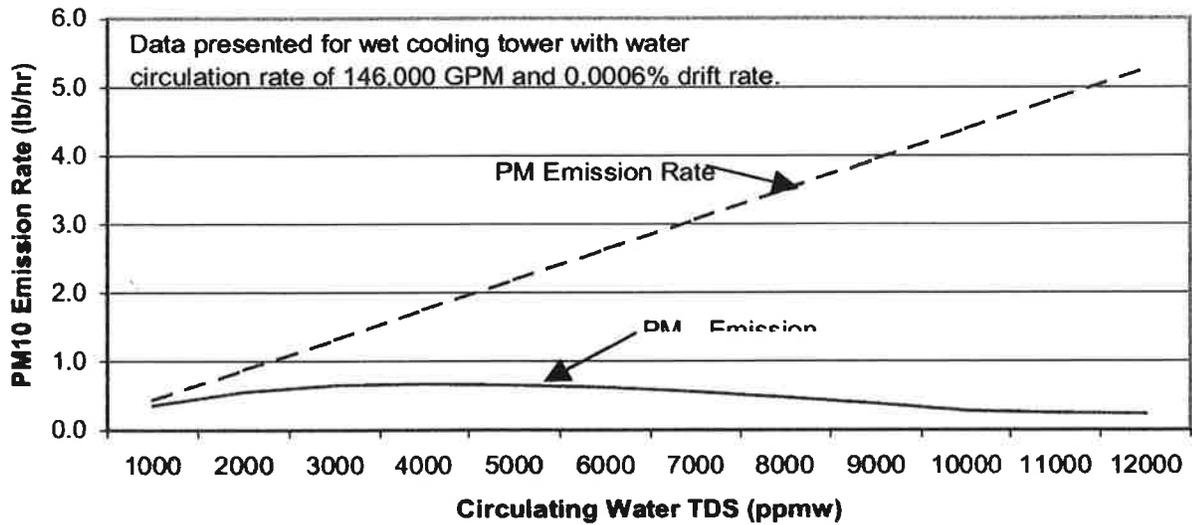
Appendix A - Emissions Inventory

Figure 1: Percentage of Drift PM that Evaporates to PM10



Reisman and Frisbie, 2001, Calculating Realistic PM10 Emissions From Cooling Towers. Greystone Environmental Consultants, Sacramento, CA., as presented at AWMA Conference in 2001.

Figure 2: PM₁₀ Emission Rate vs. TDS



**Wet Cooling Towers
Fugitive Emission Calculations
Reisman and Frisbie, 2001**

Main Cooling Tower

Hours of Ops
8760

Expected Max TDS is 23000*70% = 16,100 ppm
Drift eliminator 0.001% **Assume no control**
Max water recirculation based on maximum of each pump: 28500 gpm each

Using Reisman and Frisbie

Drift Rate % 0.001 %
TDS 16100 ppm
Water recirc rate 57000 gpm
Drift Rate 28539900 lb water/hour
PM emissions 459492.39 PM lb/hour
PM emissions per year 4025153336 pounds
PM emissions per year 2012576.668 Tons
PM10 fraction (see Tab Calc %PM10) 3.8 %
PM10 emissions 17460.71082 PM10 lb/hour
PM10 emissions per year 152955826.8 pounds
PM10 emissions per year 76477.91339 Tons

Uncontrolled

Assume PM2.5 = PM10

1. Assume maximum conductivity of 23000 uS/cm. 70% of conductivity = TDS of 16,100 ppm

2. Decrease %PM10 Fraction of 3.8% (Updated the cooling tower PM10 emissions calculations to incorporate more recent and representative droplet size distribution data for high-efficiency drift eliminator controlled cooling towers*). Scientific paper by Reisman and Frisbie citing EPRI data is included in the permit application and in the Technical Supporting Document

Reisman and Frisbie, 2001, *Calculating Realistic PM10 Emissions From Cooling Towers* Greystone Environmental Consultants, Sacramento, CA, as presented at AWMA Conference in 2001.

Hours of Ops
8760

Max TDS is 70,000 ppm
Drift eliminator 0.01%
Max water 3380 gpm

Assume no control

ZLDS Evaporative Tower

Using Reisman and Frisbie

Drift Rate % 0.01 %
TDS 70000 ppm
Water recirc rate 3380 gpm
Drift Rate 1692366 lb water/hour
PM emissions 118465.62 PM lb/hour
PM emissions per year 1037758831 pounds
PM emissions per year 518879.4156 Tons
PM10 fraction (see Tab Calc %PM10) 0.3 %
PM10 emissions 355.39686 PM10 lb/hour
PM10 emissions per year 3113276.494 pounds
PM10 emissions per year 1556.638247 Tons

Uncontrolled

Assume PM2.5 = PM10

1. Assume TDS of 70,000 ppm.

2. Decrease %PM10 Fraction of 0.3% (Updated the cooling tower PM10 emissions calculations to incorporate more recent and representative droplet size distribution data for high-efficiency drift eliminator controlled cooling towers*). Scientific paper by Reisman and Frisbie citing EPRI data is included in the permit application and in the Technical Supporting Document

Reisman and Frisbie, 2001, *Calculating Realistic PM10 Emissions From Cooling Towers* Greystone Environmental Consultants, Sacramento, CA, as presented at AWMA Conference in 2001.

**Wet Cooling Towers
Fugitive Emission Calculations
Reisman and Frisbie, 2001**

Main Cooling Tower

Hours of Ops
8760

Expected Max TDS is $23000 \times 70\% = 16,100$ ppm
Drift eliminator 0.001%
Max water recirculation based on maximum of each pump: 28500 gpm each

Using Reisman and Frisbie

Drift Rate %	0.001 %
TDS	16100 ppm
Water recirc rate	57000 gpm
Drift Rate	285.399 lb water/hour
PM emissions	4.594924 PM lb/hour
PM emissions per year	40251.53 pounds
PM emissions per year	20.12577 Tons
PM10 fraction (see Tab Calc %PM10)	3.8 %
PM10 emissions	0.174607 PM10 lb/hour
PM10 emissions per year	1529.558 pounds
PM10 emissions per year	0.764779 Tons

Assume PM2.5 = PM10

1. Assume maximum conductivity of 23000 uS/cm. 70% of conductivity = TDS of 16,100 ppm

2. Decrease %PM10 Fraction of 3.8% (Updated the cooling tower PM10 emissions calculations to incorporate more recent and representative droplet size distribution data for high-efficiency drift eliminator controlled cooling towers"). Scientific paper by Reisman and Frisbie citing EPRI data is included in the permit application and in the Technical Supporting Document.

Reisman and Frisbie, 2001, *Calculating Realistic PM10 Emissions From Cooling Towers*. Greystone Environmental Consultants, Sacramento, CA., as presented at AWMA Conference in 2001.

Hours of Ops
8760

Max TDS is 70,000 ppm
Drift eliminator 0.01%
Max water 3380 gpm

ZLDS Evaporative Tower

Using Reisman and Frisbie

Drift Rate %	0.01 %
TDS	70000 ppm
Water recirc rate	3380 gpm
Drift Rate	169.2366 lb water/hour
PM emissions	11.84656 PM lb/hour
PM emissions per year	103775.9 pounds
PM emissions per year	51.88794 Tons
PM10 fraction (see Tab Calc %PM10)	0.3 %
PM10 emissions	0.03554 PM10 lb/hour
PM10 emissions per year	311.3276 pounds
PM10 emissions per year	0.155664 Tons

2 sets of baffles, OEM

Assume PM2.5 = PM10

1. Assume TDS of 70,000 ppm.

2. Decrease %PM10 Fraction of 0.3% (Updated the cooling tower PM10 emissions calculations to incorporate more recent and representative droplet size distribution data for high-efficiency drift eliminator controlled cooling towers"). Scientific paper by Reisman and Frisbie citing EPRI data is included in the permit application and in the Technical Supporting Document.

Reisman and Frisbie, 2001, *Calculating Realistic PM10 Emissions From Cooling Towers*. Greystone Environmental Consultants, Sacramento, CA., as presented at AWMA Conference in 2001.

Assumptions:

Density of drift water droplets = 1.0 g/cm³

Density of solid particles* = 2.7 g/cm³

(*Based on density of sodium chloride)

TDS Concentration = 16100 ppmw

Diameter of Drift Droplet (μm)	Solid Particle Diameter (μm)	EPRI % Mass Diameter	% Mass Less Than 10μm
10	1.813	0.000	
20	3.627	0.196	
30	5.440	0.226	
40	7.253	0.514	
50	9.067	1.816	
60	10.880	5.702	3.8
70	12.694	21.348	
90	16.320	49.812	
110	19.947	70.509	
130	23.574	82.023	
150	27.201	88.012	
180	32.641	91.032	
210	38.081	92.468	
240	43.521	94.091	
270	48.961	94.689	
300	54.401	96.288	
350	63.468	97.011	
400	72.535	98.340	
450	81.602	99.071	
500	90.669	99.071	
600	108.802	100.000	

Assumptions:

Density of drift water droplets = 1.0 g/cm³
Density of solid particles* = 2.7 g/cm³
(*Based on density of sodium chloride)
TDS Concentration = 70000 ppmw

Diameter of Drift Droplet (μm)	Solid Particle Diameter (μm)	EPRI % Mass Diameter	% Mass Less Than 10μm
10	2.960	0.000	
20	5.919	0.196	
30	8.879	0.226	
40	11.839	0.514	0.3
50	14.798	1.816	
60	17.758	5.702	
70	20.718	21.348	
90	26.637	49.812	
110	32.556	70.509	
130	38.476	82.023	
150	44.395	88.012	
180	53.274	91.032	
210	62.153	92.468	
240	71.032	94.091	
270	79.911	94.689	
300	88.790	96.288	
350	103.589	97.011	
400	118.387	98.340	
450	133.186	99.071	
500	147.984	99.071	
600	177.581	100.000	

Jan 1, 2018 - Dec 31, 2018

Aux Boiler	
Hours	124
Fuel kscf	579.065

Gas Turbine	
Hours	6799
Fuel kscf	10896664
Fuel MMBtu	11254609
CEMs NOx	72

Populated by internal Calculations
Submitted State EI Data Entry
Required Data for Calculations

Gas BTU's	1046
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Gas Htr Hrs	6795
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Diesels	
DFP Hours	13.98
DG Hours	2.89

Gas Turbine	
Cold Start	17

	GH	Aux	CT	GT	FRD	DFP	EDG	PE
SO2	0.01	0.00	0.00	3.40	0.00	0.00	0.00	0.00
NOx	0.42	0.01	0.00	72.00	0.00	0.04	0.02	3.62
PM10	0.10	0.00	13.47	7.85	0.02	0.00	0.00	0.00
VOC	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00
								101.03

Gas Turbine	
Hr. to Rata	3828.7
Hr. from Rata	2976.83
New PM10	4.1

Gas Turbine + Duct Burner CEMs Data	
51063.6	1175761
27354	628114
53678.4	1233839
32896	757258
14927	342357
10337.4	238299
53546.9	1232291
52244.8	1201444
51021.6	1172684
39974.9	920360
46439.6	1067908
55776	1284294
489260.2	11254609
10896664	kscf

Aux boiler CEMs Data	
2	Jan
5	Feb
0	Mar
4	Apr
7	May
4	Jun
1	Jul
0	Aug
0	Sep
2	Oct
1	Nov
0	Dec
26	kilbs
579.06	kscf

Diesel Fire Hours	
0.81	Jan
0.97	Feb
1.19	Mar
0.87	Apr
1.06	May
2.94	Jun
0.89	Jul
1.25	Aug
0.92	Sep
0.96	Oct
1.17	Nov
0.95	Dec
13.98	hours

Diesel Gen Hours	
0.25	Jan
0.25	Feb
0.2	Mar
0.25	Apr
0.23	May
0.27	Jun
0.23	Jul
0.29	Aug
0.23	Sep
0.22	Oct
0.27	Nov
0.2	Dec
2.89	hours

2018 4th Qtr CAMD Report

Number of hours 6857
 Operating time (hours) 6798.47
 CO2 tons 3.4
 Heat Input (mmBtu) 668653.2
 NOx rate (#/mmBtu) 11254609

CT-1 ACT

Formula	Emission Factor	Units	Annual		Formula ID	Emissions	Starts	Number	NOx lbs/start	CO lbs/start
			Fuel Use (tscf)	Heat Input (MMBtu)						
Actual Emission From Gas Turbine - Stack Test (date noted below) & AP-42 4/00			6798	10,896,664	11,254,609	1582.54	17	0	1087	
General Electric PG7241FA			3828.7	1046.00	11254609	1582.54				
Natural Gas Avg BTU/SCF			2976.83			1655.33				
January 1 to August 6										
August 8 to Dec 31										
Criteria Pollutants										
PM-10 (includes condensables)	4.1	lb/HR			1	6.089				
SO2	0.000604085	lb/MMBtu			1	1.000				
NOx (wildcat burners)	0.029	lb/MMBtu								
NOx (w/o duct burners)	N/A	lb/MMBtu								
Total NOx	0	lb/hr								
VOC	2.3	lb/MMNSCF								
Methane	3.1	lb/MMNSCF								
Ethane										
NAP										
Ammonia	18.53	lb/hr								
Acetaldehyde	4.00E-03	lb/hr								
Benzene	5.90E-02	lb/hr								
Formaldehyde	2.00E-05	lb/MMBtu								

Formula

1 E = F * Hours of operation
 2 E = Cs * DSCFH
 3 E = F * H
 4 E = F * Fuel (mmscf)

Where:

E = Emission Rate
 F = Emission Factor
 Cs = 1.194 E-7 lb/DSCF NOx; 7.288 E-8 lb/DSCF CO; 4.41 E-8 lb/DSCF NH3
 Note - Values in Italics obtained from EDR as submitted to EPA-CAMD

GAS HTR1-ACT

Formula	Emission Factor	Units	Annual		Formula ID	Emissions	Starts	Number	NOx lbs/start	CO lbs/start
			Fuel Use (tscf)	Heat Input (MMBtu)						
Emission from Gas Heater - Actual Emissions Jan 1 2018 - Dec 31 2018 (AP-42 7/88)			6795	25684.7		27180				
GasTech Heater										
Natural Gas Avg BTU/SCF			1046.00							
Criteria Pollutants										
PM-10		lb/million ft ³	7.6	187.48		0.028				
SO2		lb/MMBtu	0.8	15.59		0.002				
NOx		lb/MMBtu	32	831.51		0.122				
CO		lb/MMBtu	84	2182.72		0.321				
VOC		lb/MMBtu	5.5	142.92		0.021				

Notes:

Gas Heater factors are based on AP-42 1.4 (7/88) Natural Gas Combustion

BLR-ACT

Jan 1, 2018 - Dec 31, 2018

Emission from Aux Boiler
(AP-42 7/98)

Hrs	Annual Fuel Use(kscf)	Heat Input(MMBtu)	Rating (MMBtu/hr)
124	579.1	605.7016	21.5

Natural Gas Avg BTU/SCF 1046.00

Criteria Pollutants	Aux Boiler Emissions			
	lb/million ft ³	lbs	tons	lb/hr
PM-10	7.6	4.40	0.0022	0.035
SO2	0.6	0.35	0.0002	0.003
NOx	32	18.53	0.0093	0.149
VOC	5.5	3.18	0.0016	0.026

Notes:

Gas Heater factors are based on AP-42 1.4 (7/98) Natural Gas Combustion

Using Reisman and Frisbie Drift Rate 4306.02 lb water/hour PM emissions per Tower 86.1204 PM lb/hour PM10 emissions per Tower 1.980769 PM10 lb/hour Current PM10 emitter 3.961538 PM10 lb/hour 13.46725 TPY PM10 total	Key inputs: 86,000 gpm max recirc, 0.01% drift rate, TDS= 20,000 ppm PM10 Fraction = 0.023*PM ^{Note 2}
1. Assume TDS of 20,000 ppm. 2. Decrease %PM10 Fraction of 2.3% (Updated the cooling tower PM10 emissions calculations to incorporate more recent and representative droplet size distribution data for high-efficiency drift eliminator controlled cooling towers"). Scientific paper by Reisman and Frisbie citing EPRI data is included in the permit application and in the Technical Supporting Document. Note 2: Reisman and Frisbie, 2001, <i>Calculating Realistic PM10 Emissions From</i>	

Portable Equipment

AP-42
 June 4, 2018- June 15, 2018

Diesel Generator

	lbs/hr.	lbs/year	HP	Run Hours	Emission Tons
NOx	30.14	7233.46	972	240	3.62
PM	2.14	513.34			0.00
SO2	1.99	478.34			0.00
VOC	2.40	576.34			0.00

O&M Data

<u>NOx</u>	<u>CO</u>	<u>PM</u>	<u>SO2</u>
2.6	0.11	0.075	N/A

g/hp-hr

Appendix B - Facility Comments on Draft Permit November 8, 2019:

Permit

Facility Comments: Page 5 change the control device for the Aux Boiler from Flue Gas Recirculation to Dry Low NO_x (DLN) Burner

DEQ's Response: The control device has been changed to a Dry Low NO_x (DLN) Burner.

Facility Comments: Selective Catalytic Reduction (SCR) with Aqueous Ammonia Injection: Manufacturer: Umicore

DEQ's Response: The manufacturer for the control device has been changed

Facility Comments: Page 6 add the specifics of the Cooling Tower drift eliminators

Manufacturer: Brentwood

Model: CF150Max

Control Efficiency: 0.001%

DEQ's Response: The specifics for the cooling tower drift eliminator have been added.

Facility Comments: Page 51 add the specifics of the Cooling Tower drift eliminators

Manufacturer: Brentwood

Model: CF150Max

Control Efficiency: 0.001%

DEQ's Response: The specifics for the cooling tower drift eliminator have been added.

Facility Comments: Page 51 Table 7-2 change the control efficiency for the Cooling Tower from 0.1% to 0.001% and for the Evaporative Tower from 0.1% to 0.01%

DEQ's Response: The control efficiencies have been corrected to 0.001% and 0.01%.

Facility Comments: Page 53 Section 7.5 Change from measuring the flow rate to using the maximum design rate for all calculations: The maximum design circulating flow rate of the cooling tower water will be used to demonstrate compliance with the total dissolved solids content and circulating flow rate requirements of the permit.

DEQ's Response: This has been changed as the emissions inventory used the maximum design flow, therefore monitoring and recordkeeping of the flow rate is not necessary.

Facility Comments: Page 53 Section 7.6 Change from measuring the flow rate to using the maximum design rate for all calculations: The maximum design circulating flow rate of the evaporative tower water will be used to demonstrate compliance with the total dissolved solids content and circulating flow rate requirements of the permit.

DEQ's Response: This has been changed as the emissions inventory used the maximum design flow, therefore monitoring and recordkeeping of the flow rate is not necessary.

Statement of Basis

Facility Comments: Page 9, Table 5.4 add the specifics of the Cooling Tower drift eliminators

Manufacturer: Brentwood

Model: CF150Max

Control Efficiency: 0.001%

DEQ's Response: The specifics for the cooling tower drift eliminator have been added.

