STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
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DEPARTMENT ORDER

Rumford Power LLC **Oxford County** **Rumford, Maine** **A-724-70-I-R**	**Departmental** **Findings of Fact and Order** **Part 70 Air Emission License** **Renewal**

FINDINGS OF FACT

After review of the Part 70 License renewal application, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 Maine Revised Statutes (M.R.S.) § 344 and § 590, the Maine Department of Environmental Protection (Department) finds the following facts:

I. REGISTRATION

A. Introduction

FACILITY	Rumford Power LLC
LICENSE TYPE	Part 70 License Renewal
NAICS CODES	221112
NATURE OF BUSINESS	Electric Power Generation
FACILITY LOCATION	43 Industrial Park Road, Rumford, Maine

Rumford Power LLC (RP) is a nominally rated 265 megawatt (MW) combined cycle electric power plant utilizing a natural gas-fired combustion turbine (the Combustion Turbine) followed by a heat recovery steam generator (HRSG).

RP has the potential to emit more than 100 tons per year (tpy) of particulate matter under 10 micrometers (PM_{10}), particulate matter under 2.5 micrometers ($PM_{2.5}$) nitrogen oxides (NO_x), and carbon monoxide (CO); therefore, the source is classified as a major source for criteria pollutants.

RP does not have the potential to emit 10 tpy or more of a single hazardous air pollutant (HAP) or 25 tpy or more of combined HAP; therefore, the source is classified as an area source for HAP.

B. Emission Equipment

The following emission units are addressed by this Part 70 License:

Combustion Turbine

Equipment	Maximum Heat Input Capacity (MMBtu/hr)	Max. Firing Rate (MMcf/hr)	Output Capacity (MW)	Fuel Type	Mfr. Date	Inst. Date
Combustion Turbine	1,975[1]	1.94[1]	197	Natural Gas	1998	1999

Fire Pump

Equipment	Maximum Heat Input Capacity (MMBtu/hr)	Max. Firing Rate (gal/hr)	Output (kW)	Fuel Type, % sulfur	Mfr. Date	Install. Date
Fire Pump	1.5	10.9	154	Distillate Fuel, 0.0015%	1998	1999

Other Fuel Burning Equipment

Equipment	Maximum Heat Input Capacity (MMBtu/hr)	Max. Firing Rate (scf/hr)	Fuel Type, % sulfur	Mfr. Date	Install. Date
Water Bath Heater	4.5	4,590	Natural Gas	2000	2000

RP has additional insignificant activities which do not need to be listed in the emission equipment tables above. The list of insignificant activities can be found in the Part 70 license application and in Appendix B of *Part 70 Air Emission License Regulations*, 06-096 C.M.R. ch. 140.

[1] The Combustion Turbine's rating for 1,975 MMBtu/hr is higher than the rating identified by the manufacturer due to increased fuel burning associated with minimum ambient air temperatures lower than what was expected by the manufacturer (< 15 °F).

C. Acronyms and Units of Measure

ASTM	American Society for Testing and Materials
BACT	Best Available Control Technology
BPT	Best Practical Treatment
C.F.R.	Code of Federal Regulations
C.M.R.	Code of Maine Rules
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emissions Monitoring System
CO	Carbon Monoxide
CO_2e	Carbon Dioxide equivalent
COMS	Continuous Opacity Monitoring System
EPA or US EPA	United States Environmental Protection Agency
ESP	Electrostatic Precipitator
°F	degrees Fahrenheit
gal/hr	gallon per hour
GHG	Greenhouse Gases
HAP	Hazardous Air Pollutants
lb	pound
lb/hr	pounds per hour
lb/MMBtu	pounds per million British Thermal Units
M.R.S.	Maine Revised Statutes
MMBtu	Million British Thermal Units
MMBtu/hr	million British Thermal Units per hour
MMcf/hr	million cubic feet per hour
MW	megawatt
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NH_3	Ammonia
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standards
NSR	New Source Review
O_2	Oxygen
PM	Particulate Matter less than 100 microns in diameter
PM_{10}	Particulate Matter less than 10 microns in diameter
$PM_{2.5}$	Particulate Matter less than 2.5 microns in diameter
ppmdv	parts per million on a dry volume basis

RACT	Reasonably Available Control Technology
RICE	Reciprocating Internal Combustion Engine
SO_2	Sulfur Dioxide
tpy	ton per year
VOC	Volatile Organic Compounds

D. Definitions

Distillate Fuel means the following:

- Fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials (ASTM) in ASTM D396;
- Diesel fuel oil numbers 1 or 2, as defined in ASTM D975;
- Kerosene, as defined in ASTM D3699;
- Biodiesel, as defined in ASTM D6751; or
- Biodiesel blends, as defined in ASTM D7467.

[06-096 C.M.R. ch. 140, BPT]

Portable or Non-Road Engine means an internal combustion engine which is portable or transportable, meaning designed to be and capable of being carried or moved from one location to another. Indicia of transportability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform. This definition does NOT include engines which remain or will remain at a location (excluding storage locations) for more than 12 consecutive months or a shorter period of time for an engine located at a seasonal source. A location is any single site at a building, structure, facility, or installation. Any engine that replaces an engine at a location and that is intended to perform the same or similar function as the engine replaced will be included in calculating the consecutive time period.

An engine is not a non-road (portable) engine if it remains or will remain at a location for more than 12 consecutive months or for a shorter period of time if sited at a seasonal source. A seasonal source is a source that remains in a single location for two years or more and which operates for fewer than 12 months in a calendar year. If an engine operates at a seasonal source for one entire season, the engine does not meet the criteria of a non-road (portable) engine and is subject to applicable stationary engine requirements.
[40 C.F.R. § 1068.30]

Records or *Logs* mean either hardcopy or electronic records. [06-096 C.M.R. ch. 140, BPT]

Shutdown (of the Combustion Turbine) means a period that begins when steady state operation stops and ends with cessation of Combustion Turbine firing.
[06-096 C.M.R. ch. 115, BACT (A-724-77-1-A, 5/7/2020)]

Startup (of the Combustion Turbine) means a period that begins when any fuel is fired in the Combustion Turbine after a shutdown and ends when the unit reaches steady state operation. Steady state operation is reached when the Combustion Turbine reaches 50% base load and the steam turbine is declared available for load changes. Aborted startups shall be included in this definition.
[06-096 C.M.R. ch. 115, BACT (A-724-77-1-A, 5/7/2020)]

E. Application Classification

All rules, regulations, or statutes referenced in this air emission license refer to the version in effect as of the issued date of this license.

The application for RP does not include the licensing of increased emissions or the installation of new or modified equipment; therefore, the license is considered to be a Part 70 License renewal issued under *Part 70 Air Emission License Regulations*, 06-096 Code of Maine Rules (C.M.R.) ch. 140.

F. Facility Description

RP is a natural gas-fired electric generation facility. The power plant consists of a combined cycle combustion turbine, an unfired heat recovery steam generator (HRSG), and a steam turbine. RP has a net nominal output capacity of 265 MW. The facility supplies electricity to the regional grid, New England Power Pool (NEPOOL), through an interconnection with Central Maine Power (CMP) transmission lines. Natural gas is supplied via pipeline to the facility from the Portland Natural Gas Transmission System.

During operation, atmospheric air enters the combined cycle combustion turbine's compressor through inlet air filters and cooler coils. Natural gas is fired, the heat from which causes the compressed air to expand and drive the turbine, generating electric power. The Combustion Turbine's exhaust is near atmospheric pressure and approximately 1,110 °F.

The Combustion Turbine is a General Electric (GE) Model MS7001FA turbine that was originally rated at approximately 178 MW for operation at ambient temperatures greater than 45°F and 190.5 MW at ambient temperatures approaching 15°F. Following the Repair for Performance project that was completed in 2021, the turbine now has a nominal output capacity of 197 MW that is only achieved at lower ambient temperatures. The turbine is designed to operate on natural gas with a maximum manufacturer heat input rating of approximately 1,975 MMBtu/hr and a firing rate of 1.94 MMcf/hr, which is typically only achieved at ambient temperatures below 0°F due to increased firing capacity associated with low ambient temperatures. The Combustion Turbine is equipped with a GE advanced dry low NO_x (DLN) combustor.

Heat from the Combustion Turbine's exhaust is recovered by the HRSG by passing the exhaust gas over water and steam filled tubes to produce high pressure steam. The HRSG is a three-pressure, natural circulation, reheat unit with no auxiliary fuel firing. After recovering usable heat, the exhaust gases pass through an aqueous ammonia (NH_3) injection grid and Selective Catalyst Reduction (SCR) system to reduce NO_x emissions. Emissions then exit through a 150-foot above ground level stack.

The steam generated by the HRSG travels through a steam turbine, which produces an additional 93 MW of electricity. The spent steam is sent to an air-cooled condenser prior to being used in the HRSG as boiler makeup water.

G. General Facility Requirements

RP is subject to the following state and federal regulations listed below in addition to the regulations listed for specific units as described further in this license.

Citation	Requirement Title
06-096 C.M.R. ch. 101	Visible Emissions Regulation
06-096 C.M.R. ch. 102	Open Burning
06-096 C.M.R. ch. 103	Fuel Burning Equipment Particulate Emission Standard
06-096 C.M.R. ch. 106	Low Sulfur Fuel Regulation
06-096 C.M.R. ch. 109	Emergency Episode Regulations
06-096 C.M.R. ch. 110	Ambient Air Quality Standards
06-096 C.M.R. ch. 116	Prohibited Dispersion Techniques
06-096 C.M.R. ch. 117	Source Surveillance – Emissions Monitoring
06-096 C.M.R. ch. 137	Emission Statements
06-096 C.M.R. ch. 140	Part 70 Air Emission License Regulations
06-096 C.M.R. ch. 143	New Source Performance Standards
06-096 C.M.R. ch. 144	National Emission Standards for Hazardous Air Pollutants
06-096 C.M.R. ch. 156	CO_2 Budget Trading Program
40 C.F.R. Part 60, Subpart KKKK	Standards of Performance for Stationary Combustion Turbines
40 C.F.R. Part 63, Subpart ZZZZ	National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
40 C.F.R. Part 68	Chemical Accident Prevention Provisions
40 C.F.R. Part 70	State Operating Permit Programs
40 C.F.R. Part 72	Permits Regulation (Acid Rain)
40 C.F.R. Part 75	Continuous Emissions Monitoring
40 C.F.R. Part 82	Protection of Stratospheric Ozone
40 C.F.R. Part 98	Mandatory Greenhouse Gas Reporting

II. BEST PRACTICAL TREATMENT (BPT) AND EMISSION STANDARDS

A. Introduction

In order to receive a license, the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in *Definitions Regulation*, 06-096 C.M.R. ch. 100. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

B. VOC RACT (Reasonably Available Control Technology)

Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds, 06-096 C.M.R. ch. 134 (VOC RACT) is applicable to sources that have the potential to emit quantities of VOC equal to or greater than 40 tons/year from non-exempt equipment. RP's potential to emit for VOC is less than 40 tons/year. Therefore, 06-096 C.M.R. ch. 134 does not apply to RP.

C. NO_x RACT (Reasonably Available Control Technology)

Reasonably Available Control Technology for Facilities that Emit Nitrogen Oxides, 06-096 C.M.R. ch. 138 (NO_x RACT) is applicable to sources that had the potential to emit quantities of NO_x equal to or greater than 100 tons/year prior to 1995. RP did not become a major source of NO_x until 1998. Therefore, 06-096 C.M.R. ch. 138 does not apply to RP.

D. CO_2 Budget Source

RP was issued license A-724-78-A-N, issued 01/15/2009, pursuant to Maine's *CO_2 Budget Trading Program*, 06-096 C.M.R. ch. 156, for the Combustion Turbine. The requirement to comply with the CO_2 Budget Source license is incorporated in this renewal.

E. Acid Rain

RP's Combustion Turbine is subject to the federal Acid Rain Program; 40 C.F.R. Part 70, *State Operating Permits Program*; and Part 72, *Permits Regulation*; therefore, the facility is required to have a Phase II acid rain permit. RP was issued an acid rain permit, A-724-70-A-S, on 01/01/1999, and the acid rain permit is incorporated in this renewal.

F. Mandatory Greenhouse Gas (GHG) Reporting

Federal regulation *Mandatory Greenhouse Gas Reporting,* 40 C.F.R. Part 98, is applicable to some facilities as addressed in *General Provisions, Who must report?*, 40 C.F.R. § 98.2. RP is an electricity generation facility, as found in Table A-3 of this subpart, and thus is subject to these reporting requirements. However, these are not considered "applicable requirements" for the purposes of Part 70 licenses and are not required to be included in Part 70 licenses as enforceable terms and conditions. Therefore, this information about these requirements is presented for informational purposes only.

G. Compliance Assurance Monitoring (CAM)

Compliance Assurance Monitoring, 40 C.F.R. Part 64, is applicable to units at major sources if the unit has emission limits, a control device to meet the limits, and pre-control emissions greater than 100% of the major source threshold.

This regulation's 40 C.F.R. § 64.2(b)(1)(vi) specifies the exemption from specific CAM requirements for any emission unit subject to emission limitations or standards for which a Part 70 air emission license specifies a continuous compliance determination method. Furthermore, 40 C.F.R. § 64.2(b)(1)(i) specifies the exemption from specific CAM requirements for any emission unit subject to emission limitations or standards in a NSPS or NESHAP regulation proposed by the Administrator after November 15, 1990. [40 C.F.R. Part 64 § 64.2(b)]

The following table lists all the specific pollutants for each unit meeting CAM applicability criteria and the determination of the applicability of CAM requirements for each.

40 C.F.R. Part 64 Applicability Table

Unit	Pollutant	CAM Required	Reason	Regulatory Authority
Combustion Turbine	$PM_{10}/PM_{2.5}$	No	Emissions are greater than 100 tpy, but no control device is used.	40 C.F.R. § 64.2(a)(2)
	NO_x	No	Operating a NO_x CEMS	40 C.F.R. § 64.2(b)(1)(vi)
	CO	No	Emissions are greater than 100 tpy, but no control device is used.	40 C.F.R. § 64.2(a)(2)
	NH_3	No	Emissions are greater than 100 tpy, but no control device is used.	40 C.F.R. § 64.2(a)(2)

Therefore, there are no units at this facility subject to CAM requirements.

H. Combustion Turbine and HRSG

The Combustion Turbine fires natural gas to generate electric power and heat that is used by the HRSG to create steam to drive a steam turbine. Though exhaust emits from the HRSG, the Combustion Turbine is the only piece of fuel burning equipment in this process. The Combustion Turbine was installed in 1999 and is licensed for a heat input capacity of 1,975 MMBtu/hr.

In 2020, RP licensed the Repair for Performance Project (A-724-77-1-A, 5/7/2020) which allowed for improved air flow through the turbine and reductions in air diverted through cooling passages. The project consisted of both hardware and software upgrades that increase turbine output and extend the life of the turbine and its components. The project also allowed the turbine to extend the use of its peak fire controls to allow for higher combustion temperatures so that the turbine can operate at a new higher peak load generation rate.

Peak load for the Combustion Turbine was previously estimated to be 190.5 MW, and following the Repair for Performance Project, it increased to approximately 197 MW. The increase in electrical output was accompanied by a 2-3 percent increase in heat input at peak load resulting in increased fuel consumption when the turbine is operating at the higher end of its operating curve. However, there was no need to increase the turbine's rated maximum heat input capacity as it was already conservatively high based on assumed constant operation at ambient temperatures below 15 °F. As part of New Source Review (NSR) license A-724-77-1-A (5/7/2020), RP reevaluated best available control technology (BACT) for all pollutants.

1. Control Equipment

   RP controls emissions of NO_x from the Combustion Turbine by use of a selective catalytic reduction (SCR) system during all operating times except for periods of startup and shutdown.

   RP shall utilize dry low-NO_x (DLN) combustors on the Combustion Turbine during all operating times.

2. Startup/Shutdown

   Emission limits of NO_x and CO apply at all times except for periods of startup and shutdown.

   For the purposes of this license, *startup* is defined as a period that begins when any fuel is fired in the Combustion Turbine after a shutdown and ends when the unit reaches steady state operation. Steady state operation is reached when the Combustion Turbine reaches 50% base load and the steam turbine is declared available for load changes.

Aborted startups shall be included in this definition. Startup shall be completed as soon as practicable, but in no case shall this period exceed 300 minutes. RP shall maintain records of all startup times and durations. Records of startups lasting longer than 240 minutes shall include an explanation of the circumstances that led to the longer startup period.

For the purposes of this license, *shutdown* is defined as a period that begins when steady state operation stops and ends with cessation of Combustion Turbine firing. Shutdown shall be completed as soon as practicable, but in no case shall this period exceed 60 minutes. RP shall maintain records of all shutdown times and durations. Records of shutdowns lasting longer than 40 minutes shall include an explanation of the circumstances that led to the longer shutdown period.

In NSR License A-724-77-1-A (5/7/2020), the following emission limits were determined to be BACT for NO_x and CO during periods of startup:

Pollutant	Performance Standard	Averaging Period
NO_x	90 ppmdv @ 15% O_2	Duration of Startup
CO	1,000 ppmdv @ 15% O_2	Duration of Startup

In NSR License A-724-77-1-A (5/7/2020), the following emission limits were determined to be BACT for NO_x and CO during periods of shutdown:

Pollutant	Performance Standard	Averaging Period
NO_x	90 ppmdv @ 15% O_2	Duration of Shutdown
CO	1,500 ppmdv @ 15% O_2	Duration of Shutdown

3. NO_x Control Program

The Combustion Turbine is not subject to *NO_x Control Program*, 06-096 C.M.R. ch. 145. This rule applies to fossil fuel-fired electric generating units with a maximum heat input greater than 250 MMBtu/hr constructed prior to 1995. The Combustion Turbine was constructed after 1995.

4. New Source Performance Standards (NSPS)

The Repair for Performance Project was considered a "modification" of the Combustion Turbine per *Standards of Performance for New Stationary Sources*, 40 C.F.R. Part 60, Subpart A § 60.2.

The Combustion Turbine is not subject to *Standards of Performance for Greenhouse Gas Emissions for Electric Generating Units*, 40 C.F.R. Part 60, Subpart TTTT. This regulation is applicable to new and reconstructed steam generating units (i.e., boilers/furnaces), integrated gasification combined cycle (IGCC) units (i.e., units that burn ≥ 50% solid-derived fuel), and combustion turbines. It is also applicable to modified steam generating units and IGCC units but not modified combustion turbines. RP's Combustion Turbine was a modified unit that was not new or reconstructed.

The Combustion Turbine was previously subject to *Standards of Performance for Stationary Gas Turbines*, 40 C.F.R. Part 60, Subpart GG. However, the Repair for Performance Project made the Combustion Turbine a modified unit subject to *Standards of Performance for Stationary Combustion Turbines*, 40 C.F.R. Part 60, Subpart KKKK. The Combustion Turbine became subject to Subpart KKKK upon startup following the Repair for Performance Project. Pursuant to 40 C.F.R. § 60.4305(b), stationary combustion turbines regulated under Subpart KKKK are exempt from the requirements of 40 C.F.R. Part 60, Subpart GG.

Following is a summary of the requirements of 40 C.F.R. Part 60, Subpart KKKK:

a. General Requirements

RP shall operate and maintain the Combustion Turbine, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction. [40 C.F.R. § 60.4333(a)]

b. Standards

The following standards apply to the Combustion Turbine.

(1) Nitrogen Oxides (NO_x)

The Combustion Turbine is subject to an emission limit for NO_x of 15 parts per million (ppm) at 15% O_2 except during periods when the unit is operating at less than 75% of peak load or at ambient temperatures less than 0 °F. During these periods, the Combustion Turbine is subject to an emission limit for NO_x of 96 ppm at 15% O_2. In each case, determination of whether there have been

excess emissions shall be made on a 30-day rolling average basis. [40 C.F.R. §§ 60.4320(a) and 60.4350(h)]

A "30-day rolling average" is the arithmetic average of all hourly NO_x emission data in ppm measured by the CEMS for a given day and the 29 unit operating days immediately preceding that unit operating day. A new 30-day average is calculated each unit operating day as the average of all hourly NO_x emissions rates for the preceding 30-unit operating days if a valid NO_x emission rate is obtained for at least 75% of all operating hours.
[40 C.F.R. § 60.4380(b)(1)]

For operating periods during which multiple emission standards apply, the applicable standard is the average of the applicable standards during each hour. For hours with multiple emission standards, the applicable limit for that hour is determined based on the condition that corresponded to the highest emissions standard. [40 C.F.R. § 60.4380(b)(3)]

RP has elected to demonstrate compliance with the NO_x emission standard through use of a NO_x CEMS.

(2) Sulfur Dioxide (SO_2)

The Combustion Turbine shall not burn fuel that contains potential emissions in excess of 0.060 lb SO_2/MMBtu heat input. [40 C.F.R. § 60.4330(a)(2)]

RP has elected to demonstrate compliance through recordkeeping in accordance with 40 C.F.R. § 60.4365(a).

c. Monitoring Requirements

(1) RP shall install, certify, calibrate, maintain, and operate a continuous emissions monitoring system (CEMS) on the Combustion Turbine consisting of a NO_x monitor and a diluent gas (O_2) monitor to determine the hourly NO_x emission rate in ppm. [40 C.F.R. § 60.4340(b)(1)]

(2) The NO_x CEMS shall be installed and operated in accordance with 40 C.F.R. § 60.4345. A NOx diluent CEMS that is installed and certified according to Appendix A of 40 C.F.R. Part 75 is acceptable for use as specified in § 60.4345(a).

(3) All CEMS data must be reduced to hourly averages as specified in § 60.13(h). [40 C.F.R. § 60.4350(a)]

(4) For each unit operating hour in which a valid hourly average is obtained for both NO_x and O_2, the data acquisition and handling system must calculate and record the hourly NO_x emission rate in units of ppm. For any hour in which the hourly average O_2 concentration exceeds 19.0%, a diluent cap value of 19.0% O_2 may be used in the emission calculations. [40 C.F.R. § 60.4350(b)]

(5) Since RP demonstrates compliance with the SO_2 standard through recordkeeping per § 60.4365(a), the facility is not required to monitor the total sulfur content of the fuel being fired. [40 C.F.R. § 60.4365]

d. Performance Tests

Following the completion of the Repair for Performance Project, RP was required to conduct initial performance tests for NO_x and SO_2 within 60 days of achieving the maximum production rate at which the facility will be operated, but not later than 180 days after startup following the completion of the project.
[40 C.F.R. § 60.6(a)]

If a NO_x CEMS is used, the subpart allows the option to perform a Relative Accuracy Test Audit (RATA) for NO_x as the initial performance test. Therefore, RP may conduct the initial performance test for NO_x by performing a RATA of the NO_x CEMS as described in 40 C.F.R. § 60.4405. RP conducted the initial performance test for NO_x on 11/18/2021. Subsequent performance tests for NO_x are not required if a NO_x CEMS is used pursuant to 40 C.F.R. § 60.4340(b).

Initial and subsequent performance tests for SO2 may be conducted by sampling and analysis of the natural gas for sulfur instead of conducting actual stack tests. RP may conduct performance tests for SO_2 by collecting a representative sample of natural gas in accordance with ASTM D5287 and analyzing the sample for the total sulfur content of the fuel using procedures allowed by Subpart KKKK. The fuel analysis may be performed by RP, a service contractor, the fuel vendor, or other qualified agency. [40 C.F.R. § 60.4415(a)(1)]

RP completed sampling and analysis of the natural gas as the initial performance test for SO2 on 11/18/2021. Subsequent performance tests for SO2 shall be conducted on an annual basis with no more than 14 calendar months between tests. [40 C.F.R. § 60.4415(a)]

e. Recordkeeping

RP shall maintain records of the fuel quality characteristics in a current, valid purchase contract, tariff sheet, or transportation contract for the fuel specifying that the total sulfur content of the natural gas is 20 grains of sulfur or less per 100 standard cubic feet. [40 C.F.R. § 60.4365(a)]

f. Reports

RP shall prepare and submit reports of excess emissions and monitor downtime. Excess emissions must be reported for all periods of unit operation, including startup, shutdown, and malfunction. [40 C.F.R. 60.4375(a)]

An excess emission is any unit operating period in which the 30-day rolling average NO_x emission rate exceeds the applicable standard. For operating periods during which multiple emission standards apply, the applicable standard is the average of the applicable standards during each hour. For hours with multiple emission standards, the applicable limit for that hour is determined based on the condition that corresponded to the highest emissions standard. [40 C.F.R. §§ 60.4380(b)(1) and (b)(3)]

A period of monitor downtime is any unit operating hour in which the data for NO_x concentration or O_2 concentration is either missing or invalid.
[40 C.F.R. §60.4380(b)(2)]

The reports of excess emissions and monitor downtime shall be submitted every six months and postmarked by the 30th day following the end of each six-month period. [40 C.F.R. § 60.4395] Note: Pursuant to 06-096 C.M.R. ch. 117, reporting of excess emissions and monitor downtime is required on a more frequent (quarterly) basis.

5. National Emissions Standards for Hazardous Air Pollutants (NESHAP)

The Combustion Turbine is not subject to *National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines*, 40 C.F.R. Part 63, Subpart YYYY. This regulation applies to stationary combustion turbines located at a major source of hazardous air pollutants (HAP). RP is not licensed as a major source of HAP.

6. Emission Limits and Streamlining

a. Pollutants

For the Combustion Turbine, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested (* denotes a request for streamlining), and the applicable emission limits can be found below. Unless otherwise stated, limits are on a 1-hour block average basis and apply at all operating times.

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
PM	0.007 lb/MMBtu	06-096 C.M.R. ch. 115, BACT (A-724-77-1-A, issued 5/7/2020)	0.007 lb/MMBtu *
	0.06 lb/MMBtu	06-096 C.M.R. ch. 103, § 2(B)(1)(c)	
	13.8 lb/hr	06-096 C.M.R. ch. 115, BACT (A-724-77-1-A, issued 5/7/2020)	13.8 lb/hr
PM_{10}	23.7 lb/hr	06-096 C.M.R. ch. 115, BACT (A-724-77-1-A, issued 5/7/2020)	23.7 lb/hr
$PM_{2.5}$	23.7 lb/hr	06-096 C.M.R. ch. 115, BACT (A-724-77-1-A, issued 5/7/2020)	23.7 lb/hr
SO_2	0.060 lb/MMBtu	40 C.F.R. Part 60, Subpart KKKK, § 60.4330(a)(2)	0.060 lb/MMBtu
	10.8 lb/hr	06-096 C.M.R. ch. 115, BACT (A-724-77-1-A, issued 5/7/2020)	10.8 lb/hr
NO_x	3.5 ppmdv @ 15% O_2 (24-hr block avg.) (See Note 1)	06-096 C.M.R. ch. 115, BACT (A-724-77-1-A, issued 5/7/2020)	3.5 ppmdv @ 15% O_2 (24-hr block avg.) (See Note 1)
	15 ppmdv @ 15% O_2 (30-day rolling avg.) (See Note 2)	40 C.F.R. Part 60, Subpart KKKK, §§ 60.4320(a) & 60.4350(h)	15 ppmdv @ 15% O_2 (30-day rolling avg.) (See Note 2)
	96 ppmdv @ 15% O_2 (30-day rolling avg.) (See Note 3)	40 C.F.R. Part 60, Subpart KKKK, §§ 60.4320(a) & 60.4350(h)	96 ppmdv @ 15% O_2 (30-day rolling avg.) (See Note 3)
	90 ppmdv @ 15% O_2 (See Notes 4 & 5)	06-096 C.M.R. ch. 115, BACT (A-724-77-1-A, issued 5/7/2020)	90 ppmdv @ 15% O_2 (See Notes 4 & 5)
	25.5 lb/hr (See Note 1)	06-096 C.M.R. ch. 115, BACT (A-724-77-1-A, issued 5/7/2020)	25.5 lb/hr (See Note 1)

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
CO	15 ppmdv @ 15% O_2 (24-hr block avg.) (See Note 1)	06-096 C.M.R. ch. 115, BACT (A-724-77-1-A, issued 5/7/2020)	15 ppmdv @ 15% O_2 (24-hr block avg.) (See Note 1)
	1,000 ppmdv @ 15% O_2 (See Note 4)	06-096 C.M.R. ch. 115, BACT (A-724-77-1-A, issued 5/7/2020)	1,000 ppmdv @ 15% O_2 (See Note 4)
	1,500 ppmdv @ 15% O_2 (See Note 5)	06-096 C.M.R. ch. 115, BACT (A-724-77-1-A, issued 5/7/2020)	1,500 ppmdv @ 15% O_2 (See Note 5)
	66.5 lb/hr (See Note 1)	06-096 C.M.R. ch. 115, BACT (A-724-77-1-A, issued 5/7/2020)	66.5 lb/hr (See Note 1)
VOC	3.1 lb/hr	06-096 C.M.R. ch. 115, BACT (A-724-77-1-A, issued 5/7/2020)	3.1 lb/hr
NH_3	10 ppmdv @ 15% O_2 (24-hr block avg) (See Note 1)	06-096 C.M.R. ch. 115, BACT (A-724-77-1-A, issued 5/7/2020)	10 ppmdv @ 15% O_2 (24-hr block avg) (See Note 1)
	27.0 lb/hr	06-096 C.M.R. ch. 115, BACT (A-724-77-1-A, issued 5/7/2020)	27.0 lb/hr

Note 1: Applies at all operating times except during periods of startup and shutdown.
Note 2: Applies at all operating times except during periods when the unit is operating at less than 75% of peak load or at ambient temperatures less than 0 °F.
Note 3: Applies during periods when the unit is operating at less than 75% of peak load or at ambient temperatures less than 0 °F.
Note 4: Applies during periods of startup. Averaging period is the duration of the startup.
Note 5: Applies during periods of shutdown. Averaging period is the duration of the shutdown.

b. Visible Emissions

The Combustion Turbine is subject to 06-096 C.M.R. ch. 101, § 3(A)(4).

Visible emissions from the Combustion Turbine shall not exceed 20% opacity on a six-minute block average basis except for periods of startup during which time RP may comply with the following work practice standards in lieu of the numerical visible emissions limit:

(1) Maintain a log (written or electronic) of the date, time, and duration of all startups of the Combustion Turbine or its associated air pollution control equipment which result in RP electing to comply with this section.

(2) Develop and implement a written startup and shutdown plan, which shall be maintained on-site and provided to the Department upon request.

(3) Limit the duration of startups to not exceed 300 minutes per occurrence, as defined in this license.

(4) Operate the Combustion Turbine, including any associated air pollution control equipment, at all times in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Department that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the unit

7. Emission Limit Compliance Methods

Compliance with the emission limits associated with the Combustion Turbine shall be demonstrated in accordance with the methods and frequencies indicated below or other methods or frequencies as approved by the Department.

a. Compliance with the SO_2 lb/hr limit is based on monthly recordkeeping of the hours of operation, the amount of natural gas fired in the Combustion Turbine, and records of the fuel sulfur content (e.g., the most recent tariff sheet showing the sulfur content of the natural gas fired).

b. Compliance with the NO_x, CO, and NH_3 ppmdv emission limits shall be demonstrated through use of a Continuous Emission Monitoring System (CEMS) that meet the performance specifications of 40 C.F.R. Part 60, Appendix B and F, 40 C.F.R. Part 75, Appendix A and B, and 06-096 C.M.R. ch. 117 as applicable.

c. Upon request by the Department, compliance with the visible emission limits shall be demonstrated through performance testing in accordance with 40 C.F.R. Part 60, Appendix A, Method 9.

d. Upon request by the Department, compliance with all other emission limits shall be demonstrated through performance testing in accordance with an appropriate test method as approved by the Department.

8. Periodic Monitoring

RP shall record data and maintain records for the following periodic monitoring values for the Combustion Turbine and its associated air pollution control equipment whenever the equipment is operating.

a. Hours of operation for the Combustion Turbine on a monthly and calendar year basis; [06-096 C.M.R ch. 137]

b. Natural gas usage for the Combustion Turbine on a monthly and calendar year basis; [06-096 C.M.R. ch. 137]
c. Records of the fuel quality characteristics in a current, valid purchase contract, tariff sheet, or transportation contract for the fuel specifying that the total sulfur content of the natural gas is 20 grains of sulfur or less per 100 standard cubic feet; [40 C.F.R. § 60.4365(a)]
d. Records of the calendar date, time, occurrence, and duration of each startup and shutdown; [06-096 C.M.R. ch. 115, BACT (A-724-77-1-A, 5/7/2020)]
e. Records of any maintenance activities performed (planned or unplanned) on the SCR system; and [40 C.F.R. § 70.6(c)(1)]
f. The following periodic monitoring values. [06-096 C.M.R. ch. 115, BACT (A-724-77-1-A, 5/7/2020)]

Parameter Monitored	Monitor Method	Monitoring Frequency	Record Frequency
Turbine natural gas firing rate	Flow meter	Continuously	Once per hour
Electric load level	Electronic monitor	Continuously	Once per shift
Turbine air inlet temperature	Temperature probe	Continuously	Once per shift
Catalyst bed temperature	Temperature probe	Continuously	Once per shift

9. Parameter Monitors

There are no parameter monitors required for the Combustion Turbine.

10. CEMS

For the Combustion Turbine, the table below lists the required continuous emission monitoring systems (CEMS).

Pollutant and Continuous Monitors	Units	Averaging Period	Origin and Authority
NO_x CEMS	ppmdv	24-hour block average, 30-day rolling average, or duration of startup / shutdown as appropriate	06-096 C.M.R. ch. 115, BACT (A-724-77-1-A, 5/7/2020), 40 C.F.R. § 60.4340(b)(1), and 40 C.F.R. Part 75
O_2 CEMS	%		
CO CEMS	ppmdv		06-96 C.M.R. ch. 115, BACT (A-724-77-1-A, 5/7/2020)
NH_3	ppmdv		

I. Water Bath Heater

RP operates a Water Bath Heater to control the temperature of the natural gas used in its system. RP's Water Bath Heater was installed in 2000, has a maximum heat input of 4.5 MMBtu/hr, and has a maximum firing rate of 4,590 scf/hr of natural gas.

1. New Source Performance Standards (NSPS)

   The Water Bath Heater is not subject to the New Source Performance Standards (NSPS) titled *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*, 40 C.F.R. Part 60, Subpart Dc. These standards apply to steam generating units with a heat input capacity of 10 MMBtu/hr or more that are constructed after June 9, 1989. The Water Bath Heater has a maximum heat input less than 10 MMBtu/hr.

2. National Emissions Standards for Hazardous Air Pollutants (NESHAP)

   The Water Bath Heater is not subject to *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources*, 40 C.F.R. Part 63, Subpart JJJJJJ, because it fires natural gas. [40 C.F.R. § 63.11195(e)]

3. Emission Limits and Streamlining

   a. Pollutants
   For the Water Bath Heater, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested (* denotes a request for streamlining), and the applicable emission limits can be found below. Limits are on a 1-hour block average basis unless otherwise stated.

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
PM	0.12 lb/MMBtu	06-096 C.M.R. ch. 103, § 2(B)(1)(a)	0.12 lb/MMBtu *
	0.12 lb/MMBtu	06-096 C.M.R. ch. 115, BACT (A-724-71-C-M, 2/23/2000)	
	0.54 lb/hr[2]	06-096 C.M.R. ch. 115, BACT (A-724-71-C-M, 2/23/2000)	0.54 lb/hr[2]
PM_{10}	0.54 lb/hr[2]	06-096 C.M.R. ch. 115, BACT (A-724-71-C-M, 2/23/2000)	0.54 lb/hr[2]

[2] These limits have been re-established to correct miscalculations in NSR licenses (A-724-71-C-M, 2/23/2000). They were recalculated by multiplying the lb/MMBtu limit for PM by the MMBtu/hr maximum input capacity of the heater to give us the value in units of lb/hr.

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
SO_2	0.01 lb/hr	06-096 C.M.R. ch. 115, BACT (A-724-71-C-M, 2/23/2000)	0.01 lb/hr
NO_x	0.44 lb/hr	06-096 C.M.R. ch. 115, BACT (A-724-71-C-M, 2/23/2000)	0.44 lb/hr
CO	0.37 lb/hr	06-096 C.M.R. ch. 115, BACT (A-724-71-C-M, 2/23/2000)	0.37 lb/hr
VOC	0.03 lb/hr	06-096 C.M.R. ch. 115, BACT (A-724-71-C-M, 2/23/2000)	0.03 lb/hr

b. Visible Emissions

Visible emissions from the Water Bath Heater shall not exceed 10% opacity on a 6-minute block average basis. [06-096 C.M.R. ch. 101, § 3(A)(3) and 06-096 C.M.R. ch. 115, BACT (A-724-71-C-M, 2/23/2000)]

4. Emission Limit Compliance Methods

Compliance with the emission limits associated with the Water Bath Heater shall be demonstrated in accordance with the appropriate test methods upon request of the Department.

5. Periodic Monitoring

RP shall record data and maintain records for the following periodic monitoring values for the Water Bath Heater.

a. Hours the Water Bath Heater was active or operating on a monthly and calendar year basis; and [06-096 C.M.R ch. 137]
b. Total amount of fuel fired in the Water Bath Heater on monthly and annual basis. [06-096 C.M.R. ch. 137]

6. Parameter Monitors

There are no parameter monitors required for the Water Bath Heater.

7. CEMS and COMS

There are no CEMS or COMS required for the Water Bath Heater.

J. Emergency Fire Pump

RP operates one emergency fire pump (Fire Pump). The Fire Pump has an engine rated at 1.5 MMBtu/hr, which fires distillate fuel. The Fire Pump was manufactured in 1998.

1. Fuel Sulfur Content

   RP is licensed to fire distillate fuel in the Fire Pump which, by definition, has a sulfur content of 0.5% or less by weight. Pursuant to 38 M.R.S. § 603-A(2)(A)(3), as of July 1, 2018, no person shall import, distribute, or offer for sale any distillate fuel with a sulfur content greater than 0.0015% by weight (15 ppm). Therefore, the distillate fuel purchased or otherwise obtained for use in the Fire Pump shall not exceed 0.0015% by weight (15 ppm).

2. New Source Performance Standards (NSPS)

   Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, 40 C.F.R. Part 60, Subpart IIII is not applicable to the Fire Pump since the unit was ordered before July 11, 2005, and manufactured before April 1, 2006.

3. National Emissions Standards for Hazardous Air Pollutants (NESHAP)

   National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines 40 C.F.R. Part 63, Subpart ZZZZ is applicable to the Fire Pump. The unit is considered an existing, emergency stationary reciprocating internal combustion engines (RICE) at an area HAP source and is not subject to New Source Performance Standards regulations. EPA's August 9, 2010 memo (*Guidance Regarding Definition of Residential, Commercial, and Institutional Emergency Stationary RICE in the NESHAP for Stationary RICE*) specifically does not exempt these units from the federal requirements.

   a. Emergency Engine Designation and Operating Criteria

      Under Subpart ZZZZ, a stationary reciprocating internal combustion engine (RICE) is considered an **emergency** stationary RICE (emergency engine) as long as the engine is operated in accordance with the following criteria. Operation of an engine outside of the criteria specified below may cause the engine to no longer be considered an emergency engine under Subpart ZZZZ, resulting in the engine being subject to requirements applicable to **non-emergency** engines.

      (1) Emergency Situation Operation (On-Site)

      There is no operating time limit on the use of an emergency engine to provide electrical power or mechanical work during an emergency

situation. Examples of use of an emergency engine during emergency situations include the following:

- Use of an engine to produce power for critical networks or equipment (including power supplied to portions of a facility) because of failure or interruption of electric power from the local utility (or the normal power source, if the facility runs on its own power production);
- Use of an engine to mitigate an on-site disaster;
- Use of an engine to pump water in the case of fire, flood, natural disaster, or severe weather conditions; and
- Similar instances.

(2) Non-Emergency Situation Operation

An emergency engine may be operated up to a maximum of 100 hours per calendar year for maintenance checks, readiness testing, and other non-emergency situations as described below without losing its status as an emergency engine under Subpart ZZZZ.

(i) An emergency engine may be operated for a maximum of 100 hours per calendar year for maintenance checks and readiness testing, provided that the tests are recommended by federal, state, or local government; the manufacturer; the vendor; the regional transmission organization or equivalent balancing authority and transmission operator; or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE more than 100 hours per calendar year.

(ii) An emergency engine may be operated for up to 50 hours per calendar year for other non-emergency situations. **However, these operating hours are counted as part of the 100 hours per calendar year operating limit described in paragraph (2) and (2) (i) above.**

The Fire Pump shall be limited to the usage outlined in 40 C.F.R. § 63.6640(f) and therefore may be classified as an existing emergency stationary RICE as defined in 40 C.F.R. Part 63, Subpart ZZZZ. Failure to comply with all of the requirements listed in 40 C.F.R. § 63.6640(f) may cause this engine to not be considered an emergency engine and therefore subject to all applicable requirements for non-emergency engines.

b. 40 C.F.R. Part 63, Subpart ZZZZ Requirements

(1) Operation and Maintenance Requirements
[40 C.F.R. § 63.6603(a) and Table 2(d)]

	Operating Limitations
Compression ignition (distillate fuel) units: Fire Pump	- Change oil and filter every 500 hours of operation or annually, whichever comes first; - Inspect the air cleaner every 1000 hours of operation or annually, whichever comes first, and replace as necessary; and - Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

The engine shall be operated and maintained according to the manufacturer's emission-related written instructions, or RP shall develop a maintenance plan that must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 C.F.R. § 63.6625(e)]

(2) Optional Oil Analysis Program
RP has the option of utilizing an oil analysis program that complies with the requirements of § 63.6625(i) in order to extend the specified oil change requirement. If this option is used, RP must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 C.F.R.§ 63.6625(i)]

(3) Non-Resettable Hour Meter Requirement
A non-resettable hour meter shall be installed and operated on the engine.
[40 C.F.R. § 63.6625(f)]

(4) Startup Idle and Startup Time Minimization Requirements
During periods of startup the facility must minimize the engine's time spent at idle and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.
[40 C.F.R. § 63.6625(h) and 40 C.F.R. Part 63, Subpart ZZZZ Table 2d]

(5) Annual Time Limit for Maintenance and Testing
As an emergency engine, the unit shall be limited to 100 hours/year for maintenance checks and readiness testing, except as specified in paragraph (a)(2)(i) above. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations. [40 C.F.R. § 63.6640(f)]

(6) Recordkeeping
RP shall keep records that include maintenance conducted on the engine and the hours of operation of the engine recorded through the non-resettable hour meter. Documentation shall include the number of hours the unit operated for emergency purposes, the number of hours the unit operated for non-emergency purposes, and the reason the engine was in operation during each time.
[40 C.F.R. § 63.6655(f)]

4. Emission Limits and Streamlining

a. Pollutants
For the Fire Pump, a listing of potentially applicable emission standards and the origin and authority of the standards can be found below. Limits are on a 1-hour block average basis unless otherwise stated.

Pollutant	Applicable Emission Standards	Origin and Authority
PM	0.47 lb/hr	06-096 C.M.R. ch. 140, BPT (A-724-70-F-R, 4/12/2017) Enforceable by State-only
PM_{10}	0.47 lb/hr	06-096 C.M.R. ch. 140, BPT (A-724-70-F-R, 4/12/2017) Enforceable by State-only
SO_2	0.01 lb/hr	06-096 C.M.R. ch. 140, BPT (A-724-70-F-R, 4/12/2017) Enforceable by State-only
NO_x	6.62 lb/hr	06-096 C.M.R. ch. 140, BPT (A-724-70-F-R, 4/12/2017) Enforceable by State-only
CO	1.43 lb/hr	06-096 C.M.R. ch. 140, BPT (A-724-70-F-R, 4/12/2017) Enforceable by State-only
VOC	0.81 lb/hr	06-096 C.M.R. ch. 140, BPT (A-724-70-F-R, 4/12/2017) Enforceable by State-only

b. Visible Emissions

Visible emissions from the Fire Pump shall not exceed 20% opacity on a six-minute block average basis except for periods of startup during which time RP may comply with the following work practice standards in lieu of the numerical visible emissions standard. [06-096 C.M.R. ch. 101, § 3(A)(4)]

a. Maintain a log (written or electronic) of the date, time, and duration of all engine startups.

b. Operate the Fire Pump in accordance with the manufacturer's emission-related operating instructions.

c. Minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations shall apply.

d. Operate the Fire Pump, including any associated air pollution control equipment, at all times in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Department, which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the unit.

5. Emission Limit Compliance Methods

Compliance with the emission limits associated with the Fire Pump shall be demonstrated in accordance with the appropriate test methods upon request of the Department.

6. Periodic Monitoring

RP shall record data and maintain records for the following periodic monitoring values for the Fire Pump.

a. Hours of operating time on a calendar year basis. [06-096 C.M.R. ch. 137]
b. Log of the duration and reasons for all operating times as they occur; [40 C.F.R. § 63.6655(f)]
c. Records of all maintenance conducted; [40 C.F.R. § 63.6655(e)] and
d. Sulfur content of the fuel fired. [06-096 C.M.R. ch. 140, BPT]

7. Parameter Monitors

There are no Parameter Monitors required for the Fire Pump.

8. CEMS and COMS

There are no CEMS or COMS required for the Fire Pump.

K. Portable Engines

Facility may operate portable engines on-site for maintenance and emergency-only purposes. Depending on their size and age, these engines may be subject to *Visible Emissions Regulation*, 06-096 C.M.R. ch. 101 and *Fuel Burning Equipment Particulate Emission Standard*, 06-096 C.M.R. ch. 103.

Any engine that cannot meet the definition of "portable engine" as defined by this license may be subject to additional State and Federal regulations. A license amendment may be necessary for a portable engine to be reclassified as stationary.

L. Performance Test Protocol

For any performance testing required by this license, RP shall submit to the Department for approval a performance test protocol, as outlined in the Department's Performance Testing Guidance, at least 30 days prior to the scheduled date of the performance test. [06-096 C.M.R. ch. 115, BPT]

The Department's Performance Testing Guidance is available online at:
https://www.maine.gov/dep/air/emissions/testing.html

M. Fugitive Emissions

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed 20% opacity on a 5-minute block average basis.
[06-096 C.M.R. ch. 101, § 3(C)]

N. Emission Statements

RP is subject to emissions inventory requirements contained in *Emission Statements*, 06-096 C.M.R. ch. 137. RP shall maintain records sufficient to complete and submit the annual emissions statement as required by this rule.

In reporting year 2023 and every third year thereafter, RP shall report to the Department emissions of hazardous air pollutants as required by 06-096 C.M.R. ch. 137, § (3)(C). The Department will use these reports to calculate and invoice for the applicable annual air quality surcharge for the subsequent three billing periods. RP shall pay the annual air quality surcharge, calculated by the Department based on these reported emissions of hazardous air pollutants, by the date required in Title 38 M.R.S. § 353-A(3).
[38 M.R.S. § 353-A(1-A)]

O. Facility Annual Emissions

The table below provides an estimate of facility-wide annual emissions for the purposes of calculating the facility's annual air license fee and establishing the facility's potential to emit (PTE). Only licensed equipment is included, i.e., emissions from insignificant activities are excluded. Similarly, unquantifiable fugitive particulate matter emissions are not included except when required by state or federal regulations. Maximum potential emissions were calculated based on the following assumptions:

- Operation of the Combustion Turbine and the Water Bath Heater for 8,760 hr/yr each; and
- Operation of the Fire Pump for 100 hrs/yr.

This information does not represent a comprehensive list of license restrictions or permissions. That information is provided in the Order section of this license.

Total Licensed Annual Emissions for the Facility
Tons/year
(used to calculate the annual license fee)

	PM	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO	VOC	NH_3
Combustion Turbine	60.6	103.8	103.8	47.3	111.6	291.2	13.6	118.0
Water Bath Heater	2.4	2.4	2.4	0.1	1.9	1.6	0.1	–
Fire Pump	–	–	–	–	0.3	0.1	–	–
Total TPY	**63.0**	**106.2**	**106.2**	**47.4**	**113.8**	**292.9**	**13.7**	**118.0**

Pollutant	Tons/year
Single HAP	9.9
Total HAP	24.9

III. AMBIENT AIR QUALITY ANALYSIS

RP previously submitted an ambient air quality impact analysis outlined in air emission license A-724-71-A-N (dated 5/7/1998) demonstrating that emissions from the facility, in conjunction with all other sources, do not violate ambient air quality standards (AAQS). An additional ambient air quality analysis is not required for this Part 70 License.

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that emissions from this source:

- will receive Best Practical Treatment;
- will not violate applicable emissions standards; and
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants the Part 70 License A-724-70-I-R pursuant to 06-096 C.M.R. ch. 140 and the preconstruction permitting requirements of 06-096 C.M.R. ch. 115 and subject to the standard and specific conditions below.

All federally enforceable and State-only enforceable conditions in existing air licenses previously issued to RP pursuant to the Department's preconstruction permitting requirements have been incorporated into this Part 70 license, except for such conditions that the Department has determined are obsolete, extraneous, or otherwise environmentally insignificant, as explained in the Findings of Fact accompanying this Order. As such, the conditions in this license supersede all previously issued air license conditions.

Federally enforceable conditions in this Part 70 license must be changed pursuant to the applicable requirements in *Major and Minor Source Air Emission License Regulations*, 06-096 C.M.R. ch. 115 for making such changes and pursuant to the applicable requirements in 06-096 C.M.R. ch. 140.

For each standard and specific condition which is state enforceable only, state-only enforceability is designated with the following statement: **Enforceable by State-only**.

Severability. The invalidity or unenforceability of any provision of this License or part thereof shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

STANDARD STATEMENTS

(1) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [06-096 C.M.R. ch. 140]

(2) The Part 70 license does not convey any property rights of any sort, or any exclusive privilege. [06-096 C.M.R. ch. 140]

(3) All terms and conditions are enforceable by EPA and citizens under the CAA unless specifically designated as state enforceable. [06-096 C.M.R. ch. 140]

(4) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license. [06-096 C.M.R. ch. 140]

(5) Notwithstanding any other provision in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [06-096 C.M.R. ch. 140]

(6) Compliance with the conditions of this Part 70 license shall be deemed compliance with any Applicable requirement as of the date of license issuance and is deemed a permit shield, provided that:

A. Such Applicable and state requirements are included and are specifically identified in the Part 70 license, except where the Part 70 license term or condition is specifically identified as not having a permit shield; or

B. The Department, in acting on the Part 70 license application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the Part 70 license includes the determination or a concise summary, thereof.

Nothing in this section or any Part 70 license shall alter or affect the provisions of Section 303 of the CAA (emergency orders), including the authority of EPA under Section 303; 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; or the ability of EPA to obtain information from a source pursuant to Section 114 of the CAA.

The following requirements have been specifically identified as not applicable based upon information submitted by the licensee.

Permit Shield Table

Source	Citation	Description	Basis for Determination
Facility	06-096 C.M.R. ch. 134	VOC RACT	PTE for VOC is less than 40 tpy.
Facility	06-096 C.M.R. ch. 138	NO_x RACT	Facility became a major source of NO_x after 1995.
Combustion Turbine	06-096 C.M.R. ch. 145	NO_x Control Program	The Combustion Turbine was constructed after 1995.
HRSG	40 C.F.R. Part 60, Subparts D, Da, Db, Dc	Standards of Performance for Fossil Fuel Fired Steam Generators, Standards of Performance for Electric Utility Steam Generating Units, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units	The HRSG is not a combustion unit and is therefore not subject to these subparts.
Combustion Turbine	40 C.F.R. Part 60, Subpart GG	Standards of Performance for Stationary Gas Turbines	Stationary turbines regulated under 40 C.F.R. Part 60, Subpart KKKK are exempt from the requirements of Subpart GG.
Fire Pump	40 C.F.R. Part 60, Subpart IIII	Standards of Performance for Stationary Compression Ignition Combustion Engines	The Fire Pump was ordered before July 11, 2005 and manufactured before April 1, 2006.
Combustion Turbine	40 C.F.R. Part 60, Subpart TTTT	Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units	This subpart is not applicable to modified combustion turbines.
Combustion Turbine	40 C.F.R. Part 63, Subpart YYYY	National Emission Standard for Hazardous Air Pollutants for Stationary Combustion Turbines	This subpart applies to stationary combustion turbines located at major sources of HAP emissions. RP is an area source of HAP and is therefore not subject.
Water Bath Heater	40 C.F.R. Part 60, Subpart Dc	Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units	The Water Bath heater is rated lower than 10 MMBtu/hr and is therefore below the applicability threshold for this subpart.
Water Bath Heater	40 C.F.R. Part 63, Subpart JJJJJJ	National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources	The Water Bath Heater is exempt from this subpart, because it fires natural gas.
Water Bath Heater	40 C.F.R. Part 63, Subpart DDDDD	National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters	The Water Bath Heater qualifies as a Process Heater as defined in this subpart; however, RP is an area source for HAP emissions. This subpart only applies to major sources for HAP.
Combustion Turbine	40 C.F.R. Part 64	Compliance Assurance Monitoring	NO_x monitored by a CEMS. No control device is used for other pollutants.

[06-096 C.M.R. ch. 140]

(7) The Part 70 license shall be reopened for cause by the Department or EPA, prior to the expiration of the Part 70 license, if:

A. Additional Applicable requirements under the CAA become applicable to a Part 70 major source with a remaining Part 70 license term of three or more years. However, no opening is required if the effective date of the requirement is later than the date on which the Part 70 license is due to expire, unless the original Part 70 license or any of its terms and conditions has been extended pursuant to 06-096 C.M.R. ch. 140;

B. Additional requirements (including excess emissions requirements) become applicable to a Title IV source under the acid rain program. Upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into the Part 70 license;

C. The Department or EPA determines that the Part 70 license contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the Part 70 license; or

D. The Department or EPA determines that the Part 70 license must be revised or revoked to assure compliance with the Applicable requirements.

The licensee shall furnish to the Department within a reasonable time any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the Part 70 license or to determine compliance with the Part 70 license.

[06-096 C.M.R. ch. 140]

(8) No license revision or amendment shall be required, under any approved economic incentives, marketable licenses, emissions trading, and other similar programs or processes for changes that are provided for in the Part 70 license. [06-096 C.M.R. ch. 140]

STANDARD CONDITIONS

(1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions and this license (38 M.R.S. § 347-C).

(2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in 06-096 C.M.R. ch. 140. [06-096 C.M.R. ch. 140]

(3) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [06-096 C.M.R. ch. 140] **Enforceable by State-only**

(4) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to 38 M.R.S. § 353-A.

(5) The licensee shall maintain and operate all emission units and air pollution control systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 C.M.R. ch. 140]
Enforceable by State-only

(6) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. In addition, the licensee shall retain records of all required monitoring data and support information for a period of at least six (6) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the Part 70 license. The records shall be submitted to the Department upon written request or in accordance with other provisions of this license. [06-096 C.M.R. ch. 140]

(7) The licensee shall comply with all terms and conditions of the air emission license. The submission of notice of intent to reopen for cause by the Department, the filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for the renewal of a Part 70 license or amendment shall not stay any condition of the Part 70 license. [06-096 C.M.R. ch. 140]

(8) In accordance with the Department's air emission compliance test protocol and 40 C.F.R. Part 60 or other method approved or required by the Department, the licensee shall:

A. Perform stack testing under circumstances representative of the facility's normal process and operating conditions:

1. Within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring, or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions;

2. To demonstrate compliance with the applicable emission standards; or

3. Pursuant to any other requirement of this license to perform stack testing.

B. Install or make provisions to install test ports that meet the criteria of 40 C.F.R. Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and

C. Submit a written report to the Department within thirty (30) days from date of test completion.

[06-096 C.M.R. ch. 140] **Enforceable by State-only**

(9) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicates emissions in excess of the applicable standards, then:

A. Within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 C.F.R. Part 60 or other method approved or required by the Department; and

B. The days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and

C. The licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.

[06-096 C.M.R. ch. 140] **Enforceable by State-only**

(10) The licensee shall maintain records of all deviations from license requirements. Such deviations shall include, but are not limited to malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emission unit itself that is not consistent with the terms and conditions of the air emission license.

A. The licensee shall notify the Commissioner within 48 hours of a violation of any emission standard and/or a malfunction or breakdown in any component part that causes a violation of any emission standard, and shall report the probable cause, corrective action, and any excess emissions in the units of the applicable emission limitation;

B. The licensee shall submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component part causes a violation of any emission standard, together with any exemption requests.

Pursuant to 38 M.R.S. § 349(9), the Commissioner may exempt from civil penalty an air emission in excess of license limitations if the emission occurs during start-up or shutdown or results exclusively from an unavoidable malfunction entirely beyond the control of the licensee and the licensee has taken all reasonable steps to minimize or prevent any emission and takes corrective action as soon as possible. There may be no exemption if the malfunction is caused, entirely or in part, by poor maintenance, careless operation, poor design, or any other reasonably preventable condition or preventable equipment breakdown. The burden of proof is on the licensee seeking the exemption under this subsection.

C. All other deviations shall be reported to the Department in the facility's semiannual report.

[06-096 C.M.R. ch. 140]

(11) Upon the written request of the Department, the licensee shall establish and maintain such records; make such reports; install, use, and maintain such monitoring equipment; sample such emissions in accordance with such methods, at such locations, at such intervals, and in such manner as the Department shall prescribe; and provide other information as the Department may reasonably require to determine the licensee's compliance status. [06-096 C.M.R. ch. 140]

(12) The licensee shall submit semiannual reports of any required periodic monitoring by January 31 and July 31 of each year, or on an equivalent schedule specified in the license. All instances of deviations from Part 70 license requirements must be clearly identified in such reports. All required reports must be certified by a responsible official. [06-096 C.M.R. ch. 140]

(13) The licensee shall submit a compliance certification to the Department and EPA annually by January 31 of each year, or more frequently if specified in the applicable requirement or by the Department. The compliance certification shall include the following:

A. The identification of each term or condition of the Part 70 license that is the basis of the certification;
B. The compliance status;
C. Whether compliance was continuous or intermittent;
D. The method(s) used for determining the compliance status of the source, currently and over the reporting period; and
E. Such other facts as the Department may require to determine the compliance status of the source.

[06-096 C.M.R. ch. 140]

SPECIFIC CONDITIONS

(14) Combustion Turbine

A. The Combustion Turbine shall fire only natural gas. [06-096 C.M.R. ch. 115, BACT (A-724-77-1-A, 5/7/2020)]

B. Control Equipment

1. RP shall operate and maintain a selective catalytic reduction (SCR) system on the Combustion Turbine for control of NO_x during all times the Combustion Turbine is operating except for periods of startup and shutdown. [06-096 C.M.R. ch. 115, BACT, (A-724-77-1-A, 5/7/2020)]

2. RP shall operate and maintain dry low-NO_x (DLN) combustors on the Combustion Turbine for control of NO_x during all times the Combustion Turbine is operating. [06-096 C.M.R. ch. 115, BACT, (A-724-77-1-A, 5/7/2020)]

3. The exhaust from the Combustion Turbine and HRSG shall be vented through a 150-foot above ground level stack. [06-096 C.M.R. ch. 115, BACT, (A-724-77-1-A, 5/7/2020)]

C. Combustion Turbine Emission Limits
Emission limits are on a 1-hour block average basis unless otherwise stated.

1. Emissions from the Combustion Turbine shall not exceed the following limits. These limits apply at all times, except for periods of startup and shutdown.

Pollutant	ppmdv	Origin and Authority	Enforceability
NO_x	3.5 @ 15% O_2 (24-hr block avg)	06-096 C.M.R. ch. 115, BACT (A-724-77-1-A, 5/7/2020)	Federally Enforceable
CO	15 @ 15% O_2 (24-hr block avg)	06-096 C.M.R. ch. 115, BACT (A-724-77-1-A, 5/7/2020)	Federally Enforceable
NH_3	10 @ 15% O_2 (24-hr block avg)	06-096 C.M.R. ch. 115, BACT (A-724-77-1-A, 5/7/2020)	Federally Enforceable

2. In addition to the 24-hour block average limit for NO_x listed above and the NO_x limits in the startup and shutdown section below, the Combustion Turbine shall not exceed the following limits.

Pollutant	ppmdv	Origin and Authority	Enforceability
NO_x	15 @ 15% O_2 (30-day rolling avg) (See Note 1)	40 C.F.R. Part 60, Subpart KKKK, §§ 60.4320(a) & 60.4350(h)	Federally Enforceable
	96 @ 15% O_2 (30-day rolling avg) (See Note 2	40 C.F.R. Part 60, Subpart KKKK, §§ 60.4320(a) & 60.4350(h)	Federally Enforceable

Note 1: Applies at all operating times except during periods when the unit is operating at less than 75% of peak load or at ambient temperatures less than 0 °F.

Note 2: Applies during periods when the unit is operating at less than 75% of peak load or at ambient temperatures less than 0 °F.

A "30-day rolling average" is the arithmetic average of all hourly NO_x emission data in ppm measured by the CEMS for a given day and the 29 unit operating days immediately preceding that unit operating day. A new 30-day average is calculated each unit operating day as the average of all hourly NO_x emissions rates for the preceding 30-unit operating days if a valid NO_x emission rate is obtained for at least 75% of all operating hours. [40 C.F.R. § 60.4380(b)(1)]

For operating periods during which multiple emission standards apply, the applicable standard is the average of the applicable standards during each hour. For hours with multiple emission standards, the applicable limit for that hour is determined based on the condition that corresponded to the highest emissions standard. [40 C.F.R. § 60.4380(b)(3)]

3. Emissions from the Combustion Turbine shall not exceed the following limits. These limits apply at all times.

Pollutant	lb/MMBtu	Origin and Authority	Enforceability
PM	0.007	06-096 C.M.R. ch. 115, BACT (A-724-77-1-A, 5/7/2020)	Federally Enforceable
SO_2	0.060	40 C.F.R. Part 60, Subpart KKKK, § 60.4330(a)(2)	Federally Enforceable

4. Emissions from the Combustion Turbine shall not exceed the following limits. These limits apply at all times unless otherwise noted.

Pollutant	lb/hr	Origin and Authority	Enforceability
PM	13.8	06-096 C.M.R. ch. 115, BACT (A-724-77-1-A, 5/7/2020)	Federally Enforceable
PM_{10}	23.7	06-096 C.M.R. ch. 115, BACT (A-724-77-1-A, 5/7/2020)	Federally Enforceable
$PM_{2.5}$	23.7	06-096 C.M.R. ch. 115, BACT (A-724-77-1-A, 5/7/2020)	Federally Enforceable
SO_2	10.8	06-096 C.M.R. ch. 115, BACT (A-724-77-1-A, 5/7/2020)	Federally Enforceable
NO_x (See Note 1)	25.5	06-096 C.M.R. ch. 115, BACT (A-724-77-1-A, 5/7/2020)	Federally Enforceable
CO (See Note 1)	66.5	06-096 C.M.R. ch. 115, BACT (A-724-77-1-A, 5/7/2020)	Federally Enforceable
VOC	3.1	06-096 C.M.R. ch. 115, BACT (A-724-77-1-A, 5/7/2020)	Federally Enforceable
NH_3	27.0	06-096 C.M.R. ch. 115, BACT (A-724-77-1-A, 5/7/2020)	Federally Enforceable

Note 1: Applies at all operating times except during periods of startup and shutdown.

D. Visible Emissions

Visible emissions from the Combustion Turbine shall not exceed 20% opacity on a six-minute block average basis except for periods of startup during which time RP may comply with the following work practice standards in lieu of the numerical visible emissions limit:

1. Maintain a log (written or electronic) of the date, time, and duration of all startups of the Combustion Turbine or its associated air pollution control equipment which result in RP electing to comply with this section.

2. Develop and implement a written startup and shutdown plan, which shall be maintained on-site and submitted to the Department upon request.

3. Limit the duration of startups to not exceed 300 minutes per occurrence, as defined in RP's license.

4. Operate the Combustion Turbine, including any associated air pollution control equipment, at all times in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information

available to the Department that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the unit.

[06-096 C.M.R. ch. 101, § 3(A)(4)]

E. Startup/Shutdown Provisions

1. RP shall minimize emissions from the Combustion Turbine to the maximum extent practicable during startup and shutdown and under maintenance or adjustment conditions by following proper operating procedures to minimize the emissions of air contaminants to the maximum extent practical. [06-096 C.M.R. ch. 115, BACT, (A-724-77-1-A, 5/7/2020)]

2. Emissions from the Combustion Turbine during periods of startup shall not exceed the following:

Pollutant	Performance Standard	Averaging Period	Origin and Authority	Enforceability
NO_x	90 ppmdv @ 15% O_2	Duration of Startup	06-096 C.M.R. ch. 115, BACT (A-724-77-1-A, 5/7/2020)	Federally Enforceable
CO	1,000 ppmdv @ 15% O_2	Duration of Startup	06-096 C.M.R. ch. 115, BACT (A-724-77-1-A, 5/7/2020)	Federally Enforceable

3. *Startup* shall be defined as a period that begins when any fuel is fired in the Combustion Turbine after a shutdown and ends when the unit reaches steady state operation. Steady state operation is reached when the Combustion Turbine reaches 50% base load and the steam turbine is declared available for load changes. Aborted startups shall be included in this definition.

   Startup shall be completed as soon as practicable, but in no case shall this period exceed 300 minutes. RP shall maintain records of all startup times and durations. Records of startups lasting longer than 240 minutes shall include an explanation of the circumstances that led to the longer startup period.
   [06-096 C.M.R. ch. 115, BACT (A-724-77-1-A, 5/7/2020)]

4. Emissions from the Combustion Turbine during periods of shutdown shall not exceed the following:

Pollutant	Performance Standard	Averaging Period	Origin and Authority	Enforceability
NO_x	90 ppmdv @ 15% O_2	Duration of Shutdown	06-096 C.M.R. ch. 115, BACT (A-724-77-1-A, 5/7/2020)	Federally Enforceable
CO	1,500 ppmdv @ 15% O_2	Duration of Shutdown	06-096 C.M.R. ch. 115, BACT (A-724-77-1-A, 5/7/2020)	Federally Enforceable

5. *Shutdown* is defined as a period that begins when steady state operation stops and ends with cessation of Combustion Turbine firing. Shutdown shall be completed as soon as practicable, but in no case shall this period exceed 60 minutes. RP shall maintain records of all shutdown times and durations. Records of shutdowns lasting longer than 40 minutes shall include an explanation of the circumstances that led to the longer startup period.
[06-096 C.M.R. ch. 115, BACT (A-724-77-1-A, 5/7/2020)]

F. Compliance Methods

Compliance with the emission limits associated with the Combustion Turbine shall be demonstrated in accordance with the methods and frequencies indicated below or other methods or frequencies as approved by the Department.

1. Compliance with the SO_2 lb/hr limit is based on monthly recordkeeping of the hours of operation, the amount of natural gas fired in the Combustion Turbine, and records of the fuel sulfur content (e.g., the most recent tariff sheet showing the sulfur content of the natural gas fired). [40 C.F.R. § 60.4365(a) and 06-096 C.M.R. ch. 115, BACT (A-724-77-1-A, 5/7/2020)]

2. CEMS

   a. Compliance with the NO_x, CO, and NH_3 ppmdv emission limits shall be demonstrated through use of Continuous Emission Monitoring Systems (CEMS) that meet the performance specifications of 40 C.F.R. Part 60, Appendix B and F, 40 C.F.R. Part 75, Appendix A and B, and 06-096 C.M.R. ch. 117 as applicable. [40 C.F.R. § 60.4340(b)(1) and 06-096 C.M.R. ch. 115, BACT (A-724-77-1-A, 5/7/2020)]

   b. A 24-hour block average basis shall be calculated as the arithmetic average of not more than 24 and not less than 8 one (1) hour block average periods. Only one 24-hour block average shall be calculated for each day, beginning at midnight. RP shall include all hours that the Combustion Turbine is operating during each day in each 24-hour block average with the exception of any hours

that include periods of startup or shutdown. Any hour that includes any time considered part of a period of startup or shutdown shall not be included in the 24-hour block average.
[06-096 C.M.R. ch. 115, BACT (A-724-77-1-A, 5/7/2020)]

3. Upon request by the Department, compliance with the visible emissions limit shall be demonstrated through performance testing in accordance with 40 C.F.R. Part 60, Appendix A, Method 9. [06-096 C.M.R. ch. 115, BACT (A-724-77-1-A, 5/7/2020)]

4. Upon request by the Department, compliance with all other emission limits shall be demonstrated through performance testing in accordance with an appropriate test method as approved by the Department. [06-096 C.M.R. ch. 115, BACT (A-724-77-1-A, 5/7/2020)]

G. Periodic Monitoring

RP shall record data and maintain records for the following periodic monitoring values for the Combustion Turbine and its associated air pollution control equipment whenever the equipment is operating.

1. Hours of operation for the Combustion Turbine on a monthly and calendar year basis; [06-096 C.M.R ch. 137]
2. Natural gas usage for the Combustion Turbine on a monthly and calendar year basis; [06-096 C.M.R. ch. 137]
3. Records of the fuel quality characteristics in a current, valid purchase contract, tariff sheet, or transportation contract for the fuel specifying that the total sulfur content of the natural gas is 20 grains of sulfur or less per 100 standard cubic feet; [40 C.F.R. § 60.4365(a)]
4. Records of the calendar date, time, occurrence, and duration of each startup and shutdown; [06-096 C.M.R. ch. 115, BACT (A-724-77-1-A, 5/7/2020)]
5. Records of any maintenance activities performed (planned or unplanned) on the SCR system; and [40 C.F.R. § 70.6(c)(1)]
6. The following periodic monitoring values. [06-096 C.M.R. ch. 115, BACT (A-724-77-1-A, 5/7/2020)]

Parameter Monitored	Monitor Method	Monitoring Frequency	Record Frequency
Turbine natural gas firing rate	Flow meter	Continuously	Once per hour
Electric load level	Electronic monitor	Continuously	Once per shift
Turbine air inlet temperature	Temperature probe	Continuously	Once per shift
Catalyst bed temperature	Temperature probe	Continuously	Once per shift

H. CEMS

RP shall operate and maintain the following continuous emission monitoring systems (CEMS) for the Combustion Turbine whenever the unit is operating:

Pollutant and Continuous Monitors	Units	Averaging Period	Origin and Authority
NO_x CEMS	ppmdv	24-hour block average, 30-day rolling average, or duration of startup / shutdown as appropriate	06-096 C.M.R. ch. 115, BACT (A-724-77-1-A, 5/7/2020), 40 C.F.R. § 60.4340(b)(1), and 40 C.F.R. Part 75
O_2 CEMS	%		
CO CEMS	ppmdv		06-96 C.M.R. ch. 115, BACT (A-724-77-1-A, 5/7/2020)
NH_3 CEMS	ppmdv		

I. 40 C.F.R. Part 60, Subpart KKKK

The Combustion Turbine is considered a modified unit subject to *Standards of Performance for Stationary Combustion Turbines*, 40 C.F.R. Part 60, Subpart KKKK, and RP shall comply with all applicable requirements of this regulation.

Following are applicable requirements of 40 C.F.R. Part 60, Subpart KKKK for the Combustion Turbine not addressed elsewhere in this Order:

1. General Requirements

   RP shall operate and maintain the Combustion Turbine, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction. [40 C.F.R. § 60.4333(a)]

2. CEMS

   a. A NO_x CEMS shall be installed and operated in accordance with 40 C.F.R. § 60.4345. A NOx diluent CEMS that is installed and certified according to Appendix A of 40 C.F.R. Part 75 is acceptable for use as specified in § 60.4345(a).

   b. All CEMS data must be reduced to hourly averages as specified in § 60.13(h). [40 C.F.R. § 60.4350(a)]

   c. For each unit operating hour in which a valid hourly average is obtained for both NO_x and O_2, the data acquisition and handling system must calculate and record the hourly NO_x emission rate in units of ppm. For any hour in which the

hourly average O_2 concentration exceeds 19.0%, a diluent cap value of 19.0% O_2 may be used in the emission calculations. [40 C.F.R. § 60.4350(b)]

3. Performance Tests

Performance tests for SO_2 shall be conducted on an annual basis with no more than 14 calendar months between tests. [40 C.F.R. §§ 60.8(a) & 60.4415(a)]

RP may conduct performance tests for SO_2 by collecting a representative sample of natural gas in accordance with ASTM D5287 and analyzing the sample for the total sulfur content of the fuel using procedures allowed by Subpart KKKK. The fuel analysis may be performed by RP, a service contractor, the fuel vendor, or other qualified agency. [40 C.F.R. § 60.4415(a)(1)]

4. Reports

a. RP shall prepare and submit reports of excess emissions and monitor downtime. Excess emissions must be reported for all periods of unit operation, including startup, shutdown, and malfunction. [40 C.F.R. 60.4375(a)]

An excess emission is any unit operating period in which the 30-day rolling average NO_x emission rate exceeds the applicable standard. For operating periods during which multiple emission standards apply, the applicable standard is the average of the applicable standards during each hour. For hours with multiple emission standards, the applicable limit for that hour is determined based on the condition that corresponded to the highest emissions standard. [40 C.F.R. §§ 60.4380(b)(1) and (b)(3)]

A period of monitor downtime is any unit operating hour in which the data for NO_x concentration or O_2 concentration is either missing or invalid.
[40 C.F.R. §60.4380(b)(2)]

b. The reports of excess emissions and monitor downtime shall be submitted every six months and postmarked by the 30th day following the end of each six-month period. [40 C.F.R. § 60.4395] Note: Pursuant to 06-096 C.M.R. ch. 117, reporting of excess emissions and monitor downtime is required on a more frequent (quarterly) basis.

(15) **Water Bath Heater**

A. The Water Bath Heater is licensed to fire natural gas. [06-096 C.M.R. ch. 115, BACT (A-724-71-C-M, 2/23/2000)]

B. Water Bath Heater Emission Limits
(Emission limits are on a 1-hour block average basis unless otherwise stated.)

1. Emissions from the Water Bath Heater shall not exceed the following limits:

Pollutant	lb/MMBtu	Origin and Authority	Enforceability
PM	0.12	06-096 C.M.R. ch. 103, § 2(B)(1)(a)	Federally Enforceable

2. Emissions from Water Bath Heater shall not exceed the following limits:

Pollutant	lb/hr	Origin and Authority	Enforceability
PM	0.54	06-096 C.M.R. ch. 115, BACT (A-724-71-C-M, 2/23/2000)	Federally Enforceable
PM_{10}	0.54	06-096 C.M.R. ch. 115, BACT (A-724-71-C-M, 2/23/2000)	Federally Enforceable
SO_2	0.01	06-096 C.M.R. ch. 115, BACT (A-724-71-C-M, 2/23/2000)	Federally Enforceable
NO_x	0.44	06-096 C.M.R. ch. 115, BACT (A-724-71-C-M, 2/23/2000)	Federally Enforceable
CO	0.37	06-096 C.M.R. ch. 115, BACT (A-724-71-C-M, 2/23/2000)	Federally Enforceable
VOC	0.03	06-096 C.M.R. ch. 115, BACT (A-724-71-C-M, 2/23/2000)	Federally Enforceable

C. Visible emissions from the Water Bath Heater shall not exceed 10% opacity on a 6-minute block average basis. [06-096 C.M.R. ch. 101, § 3(A)(3) and 06-096 C.M.R. ch. 115, BACT (A-724-71-C-M, 2/23/2000]

D. Periodic Monitoring

RP shall record data and maintain records for the following periodic monitoring values for the Water Bath Heater.

1. Hours the Water Bath Heater was active or operating on a monthly and calendar year basis; and [06-096 C.M.R ch. 137]
2. Total amount of fuel fired in the Water Bath Heater on a monthly and annual basis. [06-096 C.M.R. ch. 137]

(16) **Fire Pump**

A. The Fire Pump is licensed to fire distillate fuel. [06-096 C.M.R. ch. 140, BPT]

B. Fuel Sulfur Content

1. The fuel oil sulfur content for the Fire Pump shall be limited to 0.0015% sulfur by weight. [06-096 C.M.R. ch. 140, BPT]
2. Fuel sulfur content compliance shall be demonstrated by fuel delivery receipts from the supplier, fuel supplier certification, certificate of analysis, or testing of the tank containing the fuel to be fired. [06-096 C.M.R. ch. 140, BPT]

C. Emissions shall not exceed the following limits [06-096 C.M.R. ch. 140, BPT]:

Pollutant	lb/hr	Origin and Authority	Enforceability
PM	0.47	06-096 C.M.R. ch. 140, BPT (A-724-70-F-R, 4/12/2017)	**Enforceable by State-only**
PM_{10}	0.47	06-096 C.M.R. ch. 140, BPT (A-724-70-F-R, 4/12/2017)	**Enforceable by State-only**
SO_2	0.01	06-096 C.M.R. ch. 140, BPT (A-724-70-F-R, 4/12/2017)	**Enforceable by State-only**
NO_x	6.62	06-096 C.M.R. ch. 140, BPT (A-724-70-F-R, 4/12/2017)	**Enforceable by State-only**
CO	1.43	06-096 C.M.R. ch. 140, BPT (A-724-70-F-R, 4/12/2017)	**Enforceable by State-only**
VOC	0.81	06-096 C.M.R. ch. 140, BPT (A-724-70-F-R, 4/12/2017)	**Enforceable by State-only**

D. Visible Emissions

Visible emissions from the Fire Pump shall not exceed 20% opacity on a six-minute block average basis except for periods of startup during which time RP may comply with the following work practice standards in lieu of the numerical visible emissions standard. [06-096 C.M.R. ch. 101, § 3(A)(4)]

1. Maintain a log (written or electronic) of the date, time, and duration of all engine startups.

2. Operate the Fire Pump in accordance with the manufacturer's emission-related operating instructions.

3. Minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations shall apply.

4. Operate the Fire Pump, including any associated air pollution control equipment, at all times in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Department that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the unit.

E. The Fire Pump shall meet the applicable requirements of 40 C.F.R. Part 63, Subpart ZZZZ, including the following:

1. RP shall meet the following operational limitations for the Fire Pump

   a. Change the oil and filter every 500 hours of operation or annually, whichever comes first;
   b. Inspect the air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
   c. Inspect the hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

   Records shall be maintained documenting compliance with the operational limitations.

   [40 C.F.R. § 63.6603(a) and Table 2(d); and 06-096 C.M.R. ch. 140, BPT]

2. Oil Analysis Program Option
   RP has the option of utilizing an oil analysis program that complies with the requirements of § 63.6625(i) in order to extend the specified oil change requirement. If this option is used, RP must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 C.F.R.§ 63.6625(i)]

3. Non-Resettable Hour Meter
   A non-resettable hour meter shall be installed and operated on the engine. [40 C.F.R. § 63.6625(f)]

4. Maintenance, Testing, and Non-Emergency Operating Situations

   a. The engine shall be limited to 100 hours/year for maintenance checks and readiness testing. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations. These limits are based on a calendar year. Compliance shall be demonstrated by records (electronic or written logs) of all

engine operating hours. [40 C.F.R. § 63.6640(f) and 06-096 C.M.R. ch. 140, BPT]

b. RP shall keep records that include maintenance conducted on the engine and the hours of operation of the engine recorded through the non-resettable hour meter. Documentation shall include the number of hours the unit operated for emergency purposes, the number of hours the unit operated for non-emergency purposes, and the reason the engine was in operation during each time. [40 C.F.R. §§ 63.6655(e) and (f)]

5. Operation and Maintenance
The engine shall be operated and maintained according to the manufacturer's emission-related written instructions, or RP shall develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 C.F.R. § 63.6625(e)]

6. Startup Idle and Startup Time Minimization
During periods of startup the facility must minimize the engine's time spent at idle and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 C.F.R. § 63.6625(h) & 40 C.F.R. Part 63, Subpart ZZZZ Table 2d]

(17) **Fugitive Emissions**

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed 20% opacity on a 5-minute block average basis.
[06-096 C.M.R. ch. 101, § 3(C)]

(18) **Performance Test Protocol**

For any performance testing required by this license, RP shall submit to the Department for approval a performance test protocol, as outlined in the Department's Performance Testing Guidance, at least 30 days prior to the scheduled date of the performance test.
[06-096 C.M.R. ch. 140, BPT] **Enforceable by State-only**

(19) **CEMS Recordkeeping**

A. The licensee shall maintain records documenting that all CEMS are continuously accurate, reliable, and operated in accordance with 06-096 C.M.R. ch. 117, 40 C.F.R. Part 51, Appendix P, and 40 C.F.R. Part 60, Appendices B and F, or 40 C.F.R. Part 75, as applicable;

B. The licensee shall maintain records of all measurements, performance evaluations, calibration checks, and maintenance or adjustments for each CEMS as required by 40 C.F.R. Part 51, Appendix P; and

C. The licensee shall maintain records of other data indicative of compliance with the applicable emission standards for those periods when the CEMS were not in operation or produced invalid data. In the event the Department does not concur with the licensee's compliance determination, the licensee shall, upon the Department's request, provide additional data, and shall have the burden of demonstrating that the data is indicative of compliance with the applicable standard.

[06-096 C.M.R. ch. 140] **Enforceable by State-only**

(20) **Quarterly Reporting**

The licensee shall submit a Quarterly Report to the Department within 30 days after the end of each calendar quarter, detailing the following for the control equipment, parameter monitors, and Continuous Emission Monitoring Systems (CEMS) required by this license. [06-096 C.M.R. ch. 117]

A. All control equipment downtimes and malfunctions;
B. All CEMS downtimes and malfunctions;
C. All excess events of emission and operational limitations set by this Order, Statute, state regulations, or federal regulations, as appropriate. The following information shall be reported for each excess event;
   1. Standard exceeded;
   2. Date, time, and duration of excess event;
   3. Amount of air contaminant emitted in excess of the applicable emission standard, expressed in the units of the standard;
   4. A description of what caused the excess event;
   5. The strategy employed to minimize the excess event; and
   6. The strategy employed to prevent reoccurrence.
D. A report certifying there were no excess emissions, if that is the case.

(21) **Semiannual Reporting** [06-096 C.M.R. ch. 140]

Note: This semiannual report is separate from, and in addition to, any semiannual report required by specific NSPS or NESHAP regulations.

A. The licensee shall submit to the Department semiannual reports which are due on **January 31st** and **July 31st** of each year. The facility's designated responsible official must sign this report.
B. The semiannual report shall be considered on-time if the postmark of the submittal is on or before the due date or if the report is received by the Department within seven calendar days of the due date.

C. Each semiannual report shall include a summary of the periodic monitoring required by this license.
D. All instances of deviations from license requirements and the corrective action taken must be clearly identified and provided to the Department in summary form for each six-month interval.

(22) **Annual Compliance Certification**

RP shall submit an annual compliance certification to the Department and EPA in accordance with Standard Condition (13) of this license. The annual compliance certification is due **January 31st** of each year. The facility's designated responsible official must sign this report.

The annual compliance certification shall be considered on-time if the postmark of the submittal is on or before the due date or if the report is received by the Department within seven calendar days of the due date. Certification of compliance is to be based on the stack testing or monitoring data required by this license. Where the license does not require such data, or the license requires such data upon request of the Department and the Department has not requested the testing or monitoring, compliance may be certified based upon other reasonably available information such as the design of the equipment or applicable emission factors. [06-096 C.M.R. ch. 140]

(23) **Annual Emission Statements**

A. In accordance with *Emission Statements*, 06-096 C.M.R. ch. 137, ***Facility*** shall annually report to the Department, in a format prescribed by the Department, the information necessary to accurately update the State's emission inventory. The emission statement shall be submitted as specified by the date in 06-096 C.M.R. ch. 137.

B. In reporting year 2023 and every third year thereafter, RP shall report to the Department emissions of hazardous air pollutants as required by 06-096 C.M.R. ch. 137, § (3)(C). RP shall pay the annual air quality surcharge, calculated by the Department based on these reported emissions of hazardous air pollutants, by the date required in Title 38 M.R.S. § 353-A(3). [38 M.R.S. § 353-A(1-A)]

(24) **General Applicable State Regulations**

The licensee is subject to the State regulations listed below.

Origin and Authority	Requirement Summary	Enforceability
06-096 C.M.R. ch. 102	Open Burning	-
06-096 C.M.R. ch. 109	Emergency Episode Regulations	-
06-096 C.M.R. ch. 110	Ambient Air Quality Standards	-
06-096 C.M.R. ch. 116	Prohibited Dispersion Techniques	-
38 M.R.S. § 585-B, §§5	Mercury Emission Limit	Enforceable by State-only

(25) **Units Containing Ozone Depleting Substances**

When repairing or disposing of units containing ozone depleting substances, the licensee shall comply with the standards for recycling and emission reduction pursuant to 40 C.F.R. Part 82, Subpart F, except as provided for motor vehicle air conditioning units in Subpart B. Examples of such units include refrigerators and any size air conditioners that contain CFCs. [40 C.F.R. Part 82, Subpart F]

(26) **Asbestos Abatement**

When undertaking Asbestos abatement activities, Facility shall comply with the *Standard for Asbestos Demolition and Renovation,* 40 C.F.R. Part 61, Subpart M.

(27) **Acid Rain**

RP shall continue to comply with the federal Acid Rain Program, 40 C.F.R. Part 70, *State Operating Permits Program*, and Part 72, *Permits Regulation*, in accordance with the Phase II acid rain permit, A-724-70-A-S, issued on 01/01/1999.

(28) **CO_2 Budget Source**

RP shall continue to comply with the requirements of license A-724-78-A-N, issued 01/15/2009, per Maine's *CO_2 Budget Trading Program*, 06-096 C.M.R. ch. 156 (as amended) for the Combustion Turbine. [06-096 C.M.R. ch. 156] **Enforceable by State-only**

(29) **Expiration of a Part 70 license**

A. RP shall submit a complete Part 70 renewal application at least six but no more than 18 months prior to the expiration of this air license.

B. Pursuant to Title 5 M.R.S. §10002, and 06-096 C.M.R. ch. 140, the Part 70 license shall not expire and all terms and conditions shall remain in effect until the Department takes

final action on the renewal application of the Part 70 license. An existing source submitting a complete renewal application under 06-096 C.M.R. ch. 140 prior to the expiration of the Part 70 license will not be in violation of operating without a Part 70 license. **Enforceable by State-only**

(30) **New Source Review**

RP is subject to all previous New Source Review (NSR) requirements summarized in this Part 70 air emission license, and the NSR requirements remain in effect even if this 06-096 C.M.R. ch. 140 Air Emissions License, A-724-70-I-R, expires.

DONE AND DATED IN AUGUSTA, MAINE THIS 28th DAY OF NOVEMBER, 2022.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____ for _____
MELANIE LOYZIM, COMMISSIONER

The term of this license shall be five (5) years from the signature date above.

[Note: If a complete renewal application, as determined by the Department, is submitted at least six but no more than 18 months prior to expiration of the facility's Part 70 license, then pursuant to Title 5 M.R.S. §10002, all terms and conditions of the Part 70 license shall remain in effect until the Department takes final action on the Part 70 license renewal application.]

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 10/7/2021
Date of application acceptance: 10/7/2021

Date filed with the Board of Environmental Protection:

This Order prepared by Lynn Muzzey, Bureau of Air Quality.

FILED

NOV 28, 2022

State of Maine
Board of Environmental Protection