STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
17 STATE HOUSE STATION AUGUSTA, MAINE 04333-0017

DEPARTMENT ORDER

Penobscot Energy Recovery Company, Limited Partnership **Penobscot County** **Orrington, Maine** **A-355-70-E-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 the0 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 (the Department) finds the following facts:

I. REGISTRATION

A. Introduction

FACILITY	Penobscot Energy Recovery Company, Limited Partnership
LICENSE TYPE	Part 70 License Renewal
NAICS CODES	562213 Solid Waste Combustors and Incinerators
NATURE OF BUSINESS	Refuse Systems: Municipal Waste Combustion and Materials Recovery
FACILITY LOCATION	29 Industrial Way, Orrington, Maine

Penobscot Energy Recovery Company, Limited Partnership (PERC) is a resource recovery facility which combusts municipal solid waste to generate electricity. The facility is also licensed to combust wood, waste wood, tires, distillate fuel oil, and natural gas.

PERC has the potential to emit more than 100 tons per year (TPY) of sulfur dioxide (SO_2), nitrogen oxides (NO_X), and carbon monoxide (CO), and more than 50 TPY of volatile organic compounds (VOC); therefore, the source is a major source for these criteria pollutants. PERC has the potential to emit 10 TPY or more of a single hazardous air pollutant (HAP) and 25 TPY or more of combined HAP; therefore, the source is a major source for HAP.

B. Emission Equipment

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

Municipal Solid Waste (MSW) Combustors

Municipal Waste Combustors (MWC)	Max. Heat Input Capacity (each)	Firing Rate (each)	Year of...	Stack
MWC #1	180 MMBtu/hr firing waste 73 MMBtu/hr firing auxiliary fuels (distillate fuel and/or natural gas)	MSW: 360.5 tons/day (15 tons/hour nominal rated input capacity)	Manufacture: 1987 Installation: 1988	#1
MWC #2				

Generators and Engines

Equipment	Max. Input Capacity (MMBtu/hr)	Max. Firing Rate (gal/hr)	Output	Fuel, % sulfur	Date of...	Stack #
Emergency Generator	2.0	18.5	205 kW (285 hp)	Distillate Fuel, 0.5%	Manufacture: 1986 Installation: pre-1988	Generator Stack
Fire Pump	1.3	10.2	187 hp		Manufacture: 11/1986	Fire Pump Stack
Feedwater Pump Engine	1.2	9.3	170 hp		Manufacture and Installation: pre-1988	Feedwater Pump Stack

Process Equipment

Equipment	Emissions Control Methods
Ash Handling System	Ash Conditioning
Lime Silo	Baghouse/Fabric Filters
Process Air Handling System, Tipping Floor, Boiler Buildings	Ventilation Control
Solvent Cleaners (Parts Washers)	N. A.

Production capacities within the Findings of Fact of this license are referenced for the purpose of description only. Capacities that are determined to be a license limit are listed as such within the Order of this license.

PERC has additional units considered to be 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 Code of Maine Rules (C.M.R.) ch. 140.

C. Definition

Distillate Fuel. For the purposes of this license, *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.

D. Application Classification

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

The application for PERC 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 06-096 C.M.R. ch. 140.

E. Facility Description

The PERC facility accepts municipal solid waste, processes it into refuse-derived fuel, and then combusts it in two boilers, generating steam which drives a turbine to generate electricity. The PERC facility consists of two major systems: a front-end waste processing system and a power generation system. The facility receives residential, commercial, wood, wood waste, and other approved waste by truck, which is off-loaded into the MSW Process Building. The waste is prepared for combustion in one of two independent processing lines, each line consisting of flail mills, magnet separators, trommel screens, shredders, and associated conveyors. The processing separates a non-combustible portion of the MSW from the combustible portion and shreds the combustible MSW into a more uniform particle size for more effective firing in the combustion units. The resulting product for combustion is refuse-derived fuel, or RDF. Oversized bulky waste is processed separately as appropriate. The non-combustible materials from this process are further separated into ferrous metal, which is recycled, and front-end processing residue (such as glass, grit, etc.), which is disposed of in a landfill.

RDF is stored inside the building until it is combusted in either one of two boiler units, known as municipal waste combustors (MWCs), to produce steam for electric power generation. RDF, sometimes supplemented with wood chips delivered to the Tipping Floor, Reclaim Area, or from a separate wood chip handling line and/or fuel oil, is combusted in two water wall, traveling grate

stoker boilers. The RDF is fired through an air-swept spreader above the traveling grate. The fuel is partially burned in suspension, and combustion of the larger and heavier particles is completed on the grate.

Air pollution control equipment installed and utilized on the exhaust stream from each MWC includes a spray dryer absorber followed by a fabric filter baghouse. Upon exiting the fabric filters, exhaust gases from the two units combine and are exhausted to the atmosphere through a common stack.

Steam generated by the boilers drives a single steam turbine generator to generate electric power. Cooling water used to cool the turbine exhaust is conveyed to a cooling tower where excess heat is released to the atmosphere. Boiler feed water is heated and deaerated with steam from the turbine extractions. Electrical power from the turbine generator is stepped up to 115 kV and connected to the existing Emera Maine power transmission system through a substation located at the facility. The steam from these boilers is directed to a turbine/generator rated at 30 MW gross but which, due to power factor adjustments, typically operates at approximately 25.5 MW.

The PERC facility consists of a number of structures including the Administration Building, Maintenance Shop Building, Rolling Stock Maintenance Building, Scale House, MSW Process Building, Switch-Gear Area, and the Boiler House Building. The facility has two scales for recording of truck delivery information. The MSW Process Building serves as both the delivery point and process area for the MSW and as the storage area for the RDF prior to its conveyance to the boilers. The MSW Process Building also houses electrical equipment, a spare parts area, a maintenance area, and associated MSW processing equipment.

F. General Facility Requirements

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

Note: C.M.R. = Code of Maine Regulations; C.F.R. = Code of Federal Regulations

Citation	Requirement Title
06-096 C.M.R. ch. 101	Visible Emissions
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. 105	General Process Source Particulate Emission Standard
06-096 C.M.R. ch. 106	Low Sulfur Fuel
06-096 C.M.R. ch. 109	Emergency Episode Regulation
06-096 C.M.R. ch. 110	Ambient Air Quality Standard
06-096 C.M.R. ch. 114	Classification of Air Quality Control Regions
06-096 C.M.R. ch. 115	Major and Minor Source Air Emission License Requirements

Citation	Requirement Title
06-096 C.M.R. ch. 116	Prohibited Dispersion Techniques
06-096 C.M.R. ch. 117	Source Surveillance
06-096 C.M.R. ch. 121	Emission Limitations and Emission Testing of Resource Recovery Facilities
06-096 C.M.R. ch. 130	Solvent Cleaners
06-096 C.M.R. ch. 137	Emission Statements
06-096 C.M.R. ch. 138	Reasonably Available Control Technology for Facilities that Emit Nitrogen Oxides
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 (NESHAP)
40 C.F.R. Part 60, Subpart A	General Provisions
40 C.F.R. Part 60, Subpart Cb	Emissions Guidelines and Compliance Times for Large Municipal Waste Combustors that are Constructed on or Before September 20, 1994
40 C.F.R. Part 60, Subpart Db	Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units
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 70	State Operating Permit Programs

G. Units of Measurement

The following units of measurement are used in this license:

°C	degrees Celsius
°F	degrees Fahrenheit
gal	gallons
gr/dscf	grains per dry standard cubic feet
hp	horsepower
kV	kilovolts
kW	kilowatts
lb/hr	pounds per hour
lb/MMBtu	pounds per million British Thermal Units
lb/ton	pounds per ton
µg/dscm	micrograms per dry standard cubic meter
mg/dscm	milligrams per dry standard cubic meter
MMBtu/hr	million British Thermal Units per hour
MMscf	million standard cubic feet
MW	megawatt
ng/dscm	nanograms per dry standard cubic meter
ppm	parts per million

ppmdv	parts per million, dry basis, by volume
psig	pounds per square inch, gauge
tons/day	tons per day
tpy	tons per year

II. APPLICABILITY OF SPECIFIC REGULATIONS

A. Best Practical Treatment (BPT)

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 06-096 C.M.R. ch. 100 (as amended). 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 emission from the source being considered; and
- the economic feasibility for the type of establishment involved.

Specific BPT requirements are included for each emission unit in subsequent sections of this license.

B. NO_X RACT (Reasonably Available Control Technology)

Reasonably Available Control Technology for Facilities that Emit Nitrogen Oxides, 06-096 C.M.R. ch. 138 is applicable to sources that have the potential to emit quantities of NO_X equal to or greater than 100 tons/year. Amendment A-355-72-F-A (May 31, 1995) addressed NO_X RACT requirements. Units MWC #1 and MWC #2 were determined to be subject to NO_X RACT requirements, which are incorporated in this renewal.

C. VOC RACT (Reasonably Available Control Technology)

Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds, 06-096 C.M.R. ch. 134 is applicable to sources that have the potential to emit quantities of VOC equal to or greater than 40 tons/year but exempts VOC emissions which result from incomplete combustion. Because the VOCs emitted are from this facility result only from incomplete combustion, PERC is exempt from VOC RACT requirements according to 06-096 C.M.R. ch. 134, section (1)(C)(4).

D. PSD/BACT Review

No Prevention of Significant Deterioration (PSD) licenses involving major modifications have been issued to the facility since the initial Part 70 license.

E. Compliance Assurance Monitoring (CAM)

Federal regulation 40 C.F.R. Part 64, *Compliance Assurance Monitoring,* is applicable to any unit at a major source if the unit has, for any applicable pollutant, 1) emission limits; 2) a control device to meet those limits; and 3) pre-control emissions greater than 100 tons/year. For emissions from MWC #1 and MWC #2, the following pollutants have pre-control emissions greater than 100 tpy and the following control devices:

Pollutant	Control Method
PM	Fabric filters
SO_2, HCl	Spray dryer absorbers and fabric filters

Thus, these pollutants meet the applicability criteria for CAM requirements. However, 40 C.F.R. Part 64, § 64.2(b)(1)(i) specifies the exemption from specific CAM requirements for any emission units subject to emission limitations or standards in a NSPS or NESHAPs regulation proposed by the Administrator after November 15, 1990. Furthermore, 40 C.F.R. § 64.2(b)(1)(vi) specifies the exemption from specific CAM requirements for any emission units subject to emission limitations or standards for which a Part 70 air emission license specifies a continuous compliance determination method. [40 C.F.R. Part 64 § 64.2(b)]

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

40 C.F.R. Part 64 Applicability Table

Units	Eligible Pollutant	CAM Required	Reason CAM is Not Applicable	Regulatory Authority
MWC #1 and MWC #2	PM	No	Subject to emissions limits in NSPS 40 C.F.R. Part 60, Subpart Db, and in NSPS 40 C.F.R. Part 60, Subpart Cb, both proposed after November 15, 1990	40 C.F.R. § 64.2(b)(1)(i)
MWC #1 and MWC #2	SO_2	No	Subject to emission limits in 40 C.F.R. Part 60, Subpart Cb, § 60.33b (b)(3)(i) and Operating a SO_2 CEMS per 06-096 C.M.R. ch. 117	40 C.F.R. § 64.2(b)(1)(vi)
	HCl	No	Subject to emissions limits in NSPS 40 C.F.R. Part 60, Subpart Cb, proposed after November 15, 1990	40 C.F.R. § 64.2(b)(1)(vi)

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

F. Stack Testing for Particulate Matter

The previous license contained the requirement to annually stack test MWC #1 and MWC #2 for particulate matter. Since the issuance of the initial Part 70 license, the statutory requirement of 38 M.R.S. § 589 §§ 2 was revised to allow requirement of stack tests for particulate matter every five years for a source monitored by a continuous opacity monitoring system (COMS). However, 40 C.F.R. § 60.58b(c)(9), as incorporated in 06-096 C.M.R. ch. 121, requires the facility to conduct a performance test for particulate matter on a calendar year basis, with each subsequent test conducted no less than nine calendar months and no more than 15 calendar months following the previous performance test; and such that five performance tests are conducted in each five-year calendar period. Thus, PERC shall continue to conduct PM stack testing annually on the MWC units.

III. BEST PRACTICAL TREATMENT (BPT) AND EMISSION STANDARDS

A. MWC #1 and MWC #2 Description

MWC #1 and MWC #2 were manufactured by Riley Stoker in 1987 and designed to fire RDF, each with a maximum design operating capacity of 133.4 thousand lb/hour of steam at 720 psig and 755 °F, equating to approximately 180 MMBtu/hour (15 tons/hour of refuse). Other fuels combusted by the units include supplemental wastes as approved by the Department, tires, waste wood, wood chips, and waste types 0, 1, 2, 3, 5, and 6 as defined in *Definitions Regulation*, 06-096 C.M.R. ch. 100. Biomedical and Resource Conservation and Recovery Act (RCRA) hazardous wastes are unacceptable wastes. In addition, MWCs #1 and #2 have auxiliary burners to fire distillate fuel oil, with the option to fire natural gas if it becomes available to the facility.

Emissions exit through Stack #1, which has an inside-diameter of seven feet and an above-ground level (AGL) height of 225 feet.

B. Pollution Control Equipment

Emissions of air pollutants are controlled through the use of pollutant-specific control equipment. PERC shall maintain records of all pollution control equipment inspection and maintenance.

Particulate matter emissions (PM, PM_{10}), including heavy metals such as cadmium (Cd) and lead (Pb), are controlled from each MWC by fabric filters. Flyash captured by this flue gas treatment is conveyed to a mixer conditioner for stabilization with water to reduce risk of dust, and then combined with bottom ash for landfill disposal.

Sulfur dioxide (SO_2) and acid gases (HCl and acids which form from SO_2, such as H_2SO_3 and H_2SO_4) emissions are controlled by the use of a spray dryer absorber followed by fabric filters. In the spray dryer absorber, lime slurry is atomized through a high speed rotating wheel containing nozzles and introduced into the boilers' flue gases. The atomized slurry absorbs HCl and SO_2 from the flue gas to neutralize approximately 80% of SO_2 and 95% of HCl in the exhaust flow.

C. New Source Performance Standards (NSPS): 40 C.F.R. Part 60

1. Subpart Cb

Federal regulation *Emissions Guidelines and Compliance Times for Large Municipal Waste Combustors that are Constructed On or Before September 20, 1994*, 40 C.F.R. Part 60, Subpart Cb, is applicable to the PERC facility. This subpart contains guidelines applicable to each MWC unit with a combustion capacity greater than 250 tons per day of MSW for which construction was commenced on or before September 20, 1994. Each of PERC's two combustors is a water wall, traveling grate stoker boiler which burns RDF, was manufactured before this date, and was designed to combust up to 360.5 tons/day of MSW.

Subpart Cb includes requirements for emissions of metals, acid gases, organics, and NO_x (§ 60.33b); combustor operating practices (§ 60.34b); operator training and certification (§ 60.35b); fugitive ash emissions (§ 60.36b); compliance and performance testing (§ 60.38b); and reporting and recordkeeping (§ 60.39b). These NSPS requirements are addressed in this air emission license.

2. Subpart Db

Because of the steam generating function of the MWC systems, the two units are subject to *Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units*, NSPS 40 C.F.R. Part 60, Subpart Db. These standards apply to steam generating units with a heat input capacity of 100 MMBtu/hour or more that are constructed after June 19, 1984.

According to the subcategories of Subpart Db, this facility "combusts municipal-type solid waste and other fuels" (wood waste, fuel oil, natural gas). The operation of MWCs #1 and #2 is limited to a combined fossil fuel annual capacity factor of 10% or less, as specified under 40 C.F.R. Part 60, Subpart

Db, such that PERC is not subject to the NO_x emission standard specified under 40 C.F.R. § 60.44b. [40 C.F.R. Part 60, Subpart Db, § 60.44b (k)]

In accordance with this Subpart, PERC shall record and maintain records of the amount of fossil fuels and municipal-type solid waste combusted during each day and calculate the annual capacity factor (actual heat input during a calendar year compared to the maximum steady state design heat input capacity) for each fuel individually for the reporting period. The annual capacity factor is determined on a 12-month rolling average basis, with a new annual capacity factor calculated at the end of each calendar month. [40 C.F.R. Part 60, Subpart Db, § 60.49b (d)]

PERC shall obtain and maintain on-site fuel records from the supplier which certify that the fuel oil and gaseous fuel meet the respective definition of distillate oil and natural gas as defined in 40 C.F.R. § 60.41b, and documents compliance with the applicable sulfur limit. Reports shall be submitted to the Department and EPA certifying that only distillate fuel and/or natural gas meeting this definition were combusted as auxiliary fuel in the affected facility during the reporting period. [40 C.F.R. Part 60, Subpart Db, § 60.42b (d)]

3. Subpart E

Because MWC #1 and MWC #2 are subject to 40 C.F.R. Part 60, Subpart Cb, they are not covered by *Standards of Performance for Incinerators*, Subpart E. [40 C.F.R. Part 60, Subpart E, § 60.50 (c) and 40 C.F.R. Part 60, Subpart Cb, § 60.32b (n)]

D. National Emissions Standards for Hazardous Air Pollutants (NESHAP), 40 C.F.R. Part 63

There are no NESHAP applicable to PERC's MSW combustor units.

E. State Regulation: 06-096 C.M.R. ch. 121

The facility is subject to applicable requirements of 06-096 C.M.R. ch. 121, *Emission Limitations and Emission Testing of Resource Recovery Facilities.* These requirements are included in this air emission license.

F. CO Mass-Based Emission Limit (lb/hr) Error Correction

The facility's initial Part 70 license A-355-70-A-I (July 1, 2002) included a CO limit of 71.9 lb/hour combined emissions from the two MWC units, estimated based on data from a different facility. That lb/hour limit is inconsistent with the lb/hour equivalent to the concentration limit established in the original PSD license (A-355-72-A-N, February 26, 1986). The ambient air quality analysis conducted in support of PERC's original PSD license included modeling of CO emissions at an emission rate equivalent to 111.11 lb/hour for the combined emissions from the two MWC units, results of which predicted CO concentrations orders of magnitude below the applicable ambient air quality standard. The Department finds it appropriate to correct this mass emission rate limit to the equivalent value from the original PSD license, as reflected in the table below.

G. Emission Limits and Streamlining

PERC accepts streamlining for standards applicable to MWC #1 and MWC #2 for which there are multiple applicable requirements. Applicable emission standards, the origin and authority of each standard, and the emission limits and associated averaging periods after streamlining are presented in the following table. The origin and authority of the most stringent limit upon which the final, streamlined emission limit is based is presented in **bold type** in the table. Unless otherwise specified, the averaging times for the emission limits in the table are based on the specified averaging time of the applicable compliance test method for each pollutant.

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
PM	22.9 mg/dscm @ 7% O_2	**A-355-70-A-I (July 1, 2002), BPT**	22.9 mg/dscm @ 7% O_2
	25 mg/dscm @ 7% O_2	40 C.F.R. Part 60, Subpart Cb, § 60.33b (a)(1)(i) and 06-096 C.M.R. ch. 121 (5)(A)(1)	
	0.010 gr/dscf@12%CO_2 (22.9 mg/dscm @ 7% O_2)	**A-355-72-A-N (February 26, 1986), BACT**	
	0.08 gr/dscf @ 12% CO_2	06-096 C.M.R. ch. 104 (2)(C)	
PM	0.10 lb/MMBtu	**40 C.F.R. Part 60, Subpart Db, § 60.43b (d)**	0.10 lb/MMBtu
	0.20 lb/MMBtu	06-096 C.M.R. ch. 103 (2)(B)(2)(b)	
	7.2 lb/hr, combined emissions	A-355-70-A-I (July 1, 2002), BPT	7.2 lb/hr, combined emissions
PM_{10} (filterable only)	5.8 lb/hr, combined emissions	A-355-70-A-I (July 1, 2002), BPT	5.8 lb/hr, combined emissions

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
SO_2	1.92 lb/MMBtu in any 24-hr period	06-096 C.M.R. ch. 106 (4)(B)	29 ppmdv @ 7% O_2 or 80% reduction by weight or volume (whichever is less stringent); 24-hour daily geometric mean
	0.5lb/MMBtu	Based on 0.5% sulfur fuel oil by weight	
	0.5 lb/MMBtu	40 C.F.R. Part 60, Subpart Db, § 60.42b (d)	
	30 ppm @ 12% CO_2 and 0.0686 lb/MMBtu	A-355-72-A-N (February 26, 1986), BACT	
	29 ppmdv @ 7% O_2 or 75% reduction by weight or volume (whichever is less stringent)	40 C.F.R. Part 60, Subpart Cb, § 60.33b (b)(3)(i)	
	29 ppmdv @ 7% O_2 or 80% reduction by weight or volume (whichever is less stringent); 24-hour daily geometric mean	**06-096 C.M.R. ch. 121 (5)(A)(5)**	
	24.0 lb/hr, combined emissions	A-355-70-A-I (July 1, 2002), BPT	24.0 lb/hr, combined emissions
NO_x	180 ppmv (wet) @ 7% O_2, 24-hour daily block arithmetic average basis (tested as equivalent to 240 ppmdv @ 7% O_2)	06-096 C.M.R. ch. 138 (3)(F)	230 ppmdv @ 7% O_2, 24-hour block arithmetic average basis (combined stack)
	250 ppmdv @7% O_2	Table 1,Subpart Cb of 40 C.F.R. Part 60 and 06-096 C.M.R. ch. 121 (5)(A)(8)	
	230 ppmdv @7% O_2; 24-hr block arithmetic average (combined stack)	**A-355-71-K-A (February 18, 2000), NO_x RACT**	
	136.8 lb/hr, combined MWC #1 and #2 emissions	A-355-70-A-I (July 1, 2002), BPT	136.8 lb/hr, combined MWC #1 and #2 emissions
CO	400 ppm @ 7% O_2, 4-hour rolling average	A-355-71-I-M (June 17, 1999)	200 ppmdv @ 7% O_2, 24-hour block average basis, calculated as an arithmetic average
	200 ppmdv @ 7% O_2, 24-hour block average basis, calculated as an arithmetic average	**Table 3 to Subpart Cb of 40 C.F.R. Part 60** and 06-096 C.M.R. ch. **121 (5)(A)(9)**	
	111.11 lb/hr, combined emissions*	06-096 C.M.R. ch. 140, BPT	111.11 lb/hr, combined emissions, 24-hour block average basis*
VOC	69 ppmdv @ 7% O_2	A-355-72-A-N (February 26, 1986), BACT	69 ppmdv @ 7% O_2
	14.4 lb/hr, combined emissions	A-355-70-A-I (July 1, 2002), BPT	14.4 lb/hr, combined emissions

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
Cadmium (Cd)	35 µg/dscm (0.035 mg/dscm) @ 7% O_2	40 C.F.R. Part 60, Subpart Cb, § 60.33b (a)(2) and 06-096 C.M.R. ch. 121 (5)(A)	35 µg/dscm @ 7% O_2 (0.035 mg/dscm @ 7% O_2)
Mercury (Hg)	50 µg/dscm @ 7% O_2 or 85% reduction by weight (whichever is less stringent)	40 C.F.R. Part 60, Subpart Cb, § 60.33b (a)(3)	28 µg/dscm @ 7% O_2 or 85% reduction by weight (whichever is less stringent)
	28 µg/dscm @ 7% O_2 or 85% reduction by weight (whichever is less stringent)	06-096 C.M.R. ch. **121 (5)(A)(4)**	
	25 lb/year or 90% reduction by weight	38 M.R.S.A. §585-B, §§5	25 lb/year or 90% reduction by weight
Lead (Pb)	43E-06 gr/dscf (0.098mg/dscm)	**A-355-72-A-N (February 26, 1986), BACT**	0.098 mg/dscm @ 7% O_2 (98 µg/dscm @ 7% O_2)
	700 µg/dscm @ 7% O_2	40 C.F.R. Part 60, Subpart Cb, § 60.33b (a)(4)	
	0.40 mg/dscm @ 7% O_2 (400 µg/dscm @ 7% O_2)	06-096 C.M.R. ch. 121 (5)(A)(3)	
HCl	30 ppm @ 12% CO_2 or 0.476 lb/MMBtu	A-355-72-A-N (February 26, 1986), BACT	29 ppmdv @ 7% O_2 or 95% reduction by weight or volume (whichever is less stringent)
	29 ppmdv @ 7% O_2 or 95% reduction by weight or volume (whichever is less stringent)	**40 C.F.R. Part 60, Subpart Cb, § 60.33b (b)(3)(ii)** and 06-096 C.M.R. ch. **121 (5)(A)(6)**	
Dioxins/Furans**	30 ng/dscm (total mass) @ 7% O_2	40 C.F.R. Part 60, Subpart Cb, § 60.33b (c)(1)(ii)	25 ng/dscm (total mass) @ 7% O_2
	25 ng/dscm (total mass) @ 7% O_2	06-096 C.M.R. ch. **121 (5)(A)(7)**	

** The designation Dioxins/Furans represents polychlorinated dibenzo-dioxins and polychlorinated dibenzo-furans, also identified as PCDD/PCDF.

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
Visible Emissions	30% opacity on a six-minute block average basis	06-096 C.M.R. ch. 101 (2)(B)(5)	10% opacity on a six-minute block average basis
	10% opacity on a six-minute block average basis	**A-355-72-A-N (February 26, 1986)** and **06-096 C.M.R. ch. 121 (5)(A)(2)** and **40 C.F.R. Part 60, Subpart Cb, § 60.33b (a)(1)(iii)**	
	20% opacity on a six-minute block average basis, except for one six-minute period per hour of not more than 27% opacity	40 C.F.R. Part 60, Subpart Db, § 60.43b(f)	

* In accordance with the facility's initial Part 70 license A-355-70-A-I (July 1, 2002), for periods of firing fossil fuel in one or both boilers and during unit warmup, PERC may demonstrate compliance with a mass emission limit (lb/hr) as an alternate to the ppmdv limit identified in the table above. Specifically, PERC may demonstrate compliance with a CO mass emission limit of 111.11 lb/hour, on a 24-hour block average basis, on those days during which fossil fuel is fired for more than one full hour in one or both MWCs. The mass emission rate shall be calculated in accordance with the agreement between PERC and the Department for such calculations, as outlined in a letter from PERC to the Department dated June 28, 2002. This method may not be used on days that both boilers are fired exclusively on solid fuel, and its use is limited to no more than nine calendar days per calendar quarter.

The above caveat notwithstanding, PERC is required by 06-096 C.M.R. ch. 121 and 40 C.F.R. Part 60, Subpart Cb to meet the CO ppmdv limit identified in the table above at all times except during periods of startup, shutdown, and malfunction. Durations of startup, shutdown, or malfunction periods are limited to three hours per occurrence except under circumstances as described in 40 C.F.R. § 60.58b (a)(1)(iii). [40 C.F.R. § 60.58b (a)(1)]

In accordance with 40 C.F.R. Part 60, Subpart A, § 60.2, *Definitions*, "malfunction" means any sudden, infrequent, and **not** reasonably preventable …

- Failure of air pollution control equipment;
- Failure of process equipment; or
- Failure of a process to operate in a normal or usual manner.

Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

H. Emission Limit Compliance Methods

Compliance with the emission limits associated with MWC #1 and MWC #2 shall be demonstrated in accordance with the methods and frequencies indicated in the table below or other methods or frequencies as approved by the Department.

Pollutant	Applicable Emission Limit	Compliance Method	Frequency
PM	mg/dscm @ 7% O_2 lb/MMBtu lb/hr	40 C.F.R. Part 60, Appendix A, Method 5	Annually *
PM_{10}	lb/hr	40 C.F.R. Part 60, Appendix A, Method 5 or EPA Test Method 201 or 201A	As requested

Pollutant	Applicable Emission Limit	Compliance Method	Frequency
SO_2	ppmdv @ 7% O_2 or percent reduction	SO_2 CEMS based on a 24-hour daily geometric mean concentration (outlet data) or a 24-hour daily geometric mean percent reduction (inlet and outlet data)	Continuously (in accordance with 40 C.F.R. Part 60, App. B)
	lb/hr	40 C.F.R. Part 60, App. A, Method 19 or Method 6C	As requested
NO_X	ppmdv @7% O_2	NO_x CEMS on a 24-hour block average basis; midnight to midnight	Continuously (in accordance with 40 C.F.R. Part 60, App. B)
	lb/hr	40 C.F.R. Part 60, Appendix A, Method 7	As requested
CO	ppmdv @ 7% O_2	CO CEMS, 24-hour daily arithmetic average	Continuously (in accordance with 40 C.F.R. Part 60, App. B)
CO	lb/hr	40 C.F.R. Part 60, Appendix A, Method 10	As requested
VOC	ppmdv @ 7% O_2	40 C.F.R. Part 60, Appendix A, Method 25 or 25A	As requested
	lb/hr		
Cadmium (Cd)	µg/dscm @ 7% O_2	40 C.F.R. Part 60, Appendix A, Method 29	Annually *
Mercury (Hg)	µg/dscm @ 7% O_2		
Lead (Pb)	µg/dscm @ 7% O_2		
HCl	ppmdv @ 7% O_2	40 C.F.R. Part 60, Appendix A, Method 26	Annually *
Dioxins/Furans	lb/ton (demonstrated at equivalent lb/hour) and ng/dscm (total mass) @ 7% O_2	40 C.F.R. Part 60, Appendix A, Method 23	Annually *
Visible Emissions	% opacity	COMS on a 6-minute block average basis	Continuously (in accordance with 40 C.F.R. Part 60, App. B)

* Frequency of required compliance demonstrations shall be in accordance with the following detailed definitions and conditional scenarios.

Pertaining to PM, Cd, Hg, and Pb, *annually* shall mean on a calendar year basis, with each subsequent test performed no less than nine and no more than 15 calendar months following the previous performance test. The facility must complete five performance tests in each five-calendar year period.

[40 C.F.R. § 60.58b, as referenced by 40 C.F.R. Part 60, Subpart Cb § 60.36b, and 06-096 C.M.R. ch. 121]

Pertaining to HCl, *annually* shall mean on a calendar year basis, with each subsequent test performed no more than 12 calendar months following the previous performance test. [40 C.F.R. § 60.58b, as referenced by 40 C.F.R. Part 60, Subpart Cb § 60.36b, and 06-096 C.M.R. ch. 121]

Pertaining to Dioxins/Furans, *annually* shall mean on a calendar year basis, with each subsequent test performed no less than nine and no more than 15 calendar months following the previous performance test. The facility must complete five performance tests in each five-calendar year period.

An alternative test schedule may apply to Dioxins/Furans testing, in accordance with 06-096 C.M.R. ch. 121(5)(D)(3), which cites 40 C.F.R. § 60.58b (g)(5)(iii), including the following:

1. Where all performance tests for Dioxins/Furans over a two-year period indicate that Dioxins/Furans emissions are less than or equal to 7 ng/dscm total mass at 7% O_2 for all affected facilities located within the facility, PERC may elect to conduct annual performance tests for one of the units per year. At a minimum, a performance test for Dioxins/Furans emissions shall be conducted on a calendar year basis (no less than nine calendar months and no more than 15 months following the previous performance test) for one of the two units at PERC. Under the alternative test schedule, annual testing shall alternate between the two MWC units.

2. If each annual performance test continues to indicate a Dioxins/Furans emission level less than or equal to 7 ng/dscm total mass at 7% O_2, PERC may continue Dioxin/Furans performance testing on only one unit per calendar year. If any annual performance test indicates a Dioxins/Furans emissions level greater than 7 ng/dscm total mass at 7% O_2, performance tests shall thereafter be conducted annually on both units at the facility until and unless all annual performance tests for both units over a two-year period indicate a Dioxins/Furans emission level less than or equal to 7 ng/dscm total mass at 7% O_2. [40 C.F.R. § 60.38b(b)]

I. Operating Specifications

1. Fuel Specifications [A-355-70-A-I (July 1, 2002)]

   When combusting solid waste, PERC shall fire only waste types 0, 1, 2, 3, 5, and 6, each as defined in 06-096 C.M.R. ch. 100. Waste classified as RCRA hazardous wastes, low level radioactive wastes, and red bag medical wastes are unacceptable wastes and shall not be combusted in the MWCs.

2. Auxiliary Fuel: Fuel Oil Specifications

   The facility is licensed to fire distillate fuel which, by definition, has a sulfur content of 0.5% or less by weight. Per 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, beginning July 1, 2018, the distillate fuel purchased or otherwise obtained for use at the facility shall not exceed 0.0015% by weight (15 ppm).

   Sulfur content compliance shall be demonstrated by fuel delivery receipts or purchase records from the supplier. [A-355-70-A-I (July 1, 2002), BPT]

3. Fuel Storage [A-355-72-A-N (February 26, 1986), BACT]

   PERC shall not use the tipping floor or bunkers as MSW storage areas during times of prolonged facility outages or maintenance. There shall be no outside storage of MSW.

4. Control Equipment Specifications [40 C.F.R. § 60.53b(c), as referenced by 06-096 C.M.R. ch. 121, and A-355-70-A-I (July 1, 2002)]

   The four-hour block average particulate matter control device inlet temperature shall not exceed 17°C above the maximum demonstrated particulate matter control device inlet temperature as determined during Dioxins/Furans testing, except for the two weeks prior to and during Dioxins/Furans testing, or if waived by the Department for purposes of evaluating system performance, testing new technology or control technologies, or diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions.

   Maximum demonstrated particulate matter control device temperature means the highest four-hour arithmetic average flue gas temperature measured at the particulate matter control device (fabric filters) inlet during four consecutive hours during the most recent Dioxins/Furans performance test demonstrating compliance with the applicable limit for Dioxins/Furans.

5. Startup, Shutdown, and Malfunction [40 C.F.R. § 60.58b(a), as referenced by 06-096 C.M.R. ch. 121, and A-355-70-A-I (July 1, 2002), BPT]

   Emission standards for MWC #1 and MWC #2 excluding concentration limits (ppm) for CO apply at all times during periods of startup, shutdown, and malfunction. During such times, CO mass emission limits (lb/hr) equivalent to those mass emissions rates modeled in support of the facility's original PSD license shall continue to apply.

a. *MWC warm-up* for each MWC unit shall be defined as the period before startup commences, when only fossil fuel is being fired in the unit.

b. The *startup period* (for both cold and warm startup) for each MWC unit begins when RDF is fed into the feed chute, and does not include any warm-up period when the unit is combusting fossil fuel with no RDF being fed to the combustor. The startup period ends when continuous burning begins.

c. *Continuous burning* is the continuous, semi-continuous, or batch feeding of RDF for purposes of waste disposal, energy production, or providing heat to the combustion system in preparation for waste disposal or energy production. The use of RDF solely to provide thermal protection of the grate or hearth during the startup period when RDF is not being fed to the grate is not considered to be continuous burning.

d. *Emergency shutdown* of a MWC unit begins when RDF is no longer fed into the feed chute for that particular boiler and combustion flows to the primary and/or secondary air fans for that boiler are shut off.

e. Durations of startup, shutdown, or malfunction periods are limited to three hours per occurrence, except as provided for CO emissions in the following paragraph. During periods of startup, shutdown, or malfunction, monitoring data shall be dismissed or excluded from compliance calculations, but shall be recorded and reported in accordance with the provisions of 40 C.F.R. § 60.59b(d)(7).

   For the purpose of compliance with the CO emission limits, if a loss of boiler water level control (e.g., boiler waterwall tube failure) or a loss of combustion air control (e.g., loss of combustion air fan, induced draft fan, combustion grate bar failure) is determined to be a malfunction, the duration of the malfunction period is limited to 15 hours per occurrence. During such periods of malfunction, monitoring data shall be dismissed or excluded from compliance calculations, but shall be recorded and reported in accordance with the provisions of 40 C.F.R. § 60.59b(d)(7).

f. *Routine shutdown* of a MWC unit begins when RDF is no longer fed into the feed chute for that particular boiler and combustion flow to the primary and secondary air fans of that boiler continues until all RDF is burned and has been discharged to the ash system.

g. Start-up and Shutdown Plan [A-355-70-A-I (July 1, 2002)]

   PERC shall maintain a written start-up and shutdown plan that details procedures for operating and maintaining the source during periods of start-up and shutdown and a program of corrective action for

malfunctioning process and air pollution control equipment used to comply with the relevant standards. The Start-up and Shutdown Plan, including previous versions of the plan if it is amended, shall be kept on-site and made available to the EPA or the Department upon request.

During periods of start-up and shutdown, PERC shall operate and maintain the source (including associated air pollution control equipment) in accordance with the procedures specified in the start-up and shutdown plan. Records shall be maintained documenting compliance with the written start-up and shutdown plan, including records of the occurrence of and duration for each start-up or shutdown.

Actions taken during a start-up or shutdown which are not consistent with the procedures specified in the start-up or shutdown plan shall be recorded and reported within two working days after commencing actions inconsistent with the plan, and followed by a letter within seven working days after the end of the event if requested by the Department.

If the start-up and shutdown plan fails to address an event that was not included in the plan at the time the plan was developed, PERC shall revise the start-up and shutdown plan within 45 days after the event to include detailed procedures for operating and maintaining the source during similar events.

6. Stack O_2 Levels During Warm-up and/or Startup, Shutdown, or Malfunction

During warm-up and/or startup, stack O_2 levels that exceed 14.0% may be replaced with a value of 14.0%. In such circumstances, hourly ppmdv averages for SO_2, NO_x, and CO may be recalculated, and the recalculated values used for compliance demonstration purposes. After startup, the use of actual O_2 readings will resume. [A-355-70-A-I (July 1, 2002)]

During a loss of boiler water level control or a loss of combustion air control malfunction period, a diluent cap of 14.0% O_2 may be used in the emissions calculations for SO_2 and NO_x. [40 C.F.R. § 60.58b (b)(8)]

7. MWC Operating Load Level
[06-096 C.M.R. ch. 121, A-355-70-A-I (July 1, 2002)]

In accordance with the requirements of 06-096 C.M.R. *ch.* 121 and 40 C.F.R. Part 60, Subpart Cb, the operating practices requirements of 40 C.F.R. Subpart Eb apply to all facilities with large municipal waste combustor units such as PERC's units. Thus, according to § 60.53b of Subpart Eb, the following requirements are applicable to this facility:

a. The maximum demonstrated municipal waste combustor unit load shall be determined during each Dioxins/Furans performance test, measured as steam flow or feed water flow. The *maximum demonstrated municipal waste combustor unit load* is the highest four-hour arithmetic average load achieved during four consecutive hours of the most recent emissions test during which compliance with the Dioxins/Furans emission limit was achieved.

b. Over any four-hour block period, each MWC operating load level shall not exceed 110% of the maximum demonstrated MWC unit load level measured as steam flow or feedwater flow. This restriction shall not apply to the two weeks prior to and during Dioxins/Furans testing, or may be waived in writing by the Department for purposes of evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state of the art for controlling facility emissions.

J. CEMS and COMS

For MWC #1 and MWC #2, the table below lists the required continuous emission monitoring systems (CEMS) and the continuous opacity monitoring systems (COMS).

Pollutant and Continuous Monitor	Unit of Measurement	Origin and Authority
SO_2 CEMS	ppmdv	06-096 C.M.R. ch. 117
NO_x CEMS	ppmdv	06-096 C.M.R. ch. 117 and 06-096 C.M.R. ch. 138 (3)(G)(2)
CO CEMS (common stack)	ppmdv	06-096 C.M.R. ch. 117 and 121
O_2 CEMS*	%	06-096 C.M.R. ch. 117 and 121
COMS	%	

* at each location where SO_2, NO_x, or CO emissions are monitored

For every emission standard which includes an O_2 correction and for which compliance is demonstrated using a CEMS, PERC shall calibrate, maintain, and operate an O_2 CEMS at each location where the pollutant CEMS is operated, and record the output of the system. Each monitoring system shall comply with 06-096 C.M.R. ch. 117 and 121, and 40 C.F.R. Part 60 § 60.58b(b)(1) through (7).

Test procedures and test methods for each O_2 CEMS shall comply with the test procedures specified in paragraphs (b)(1) through (b)(8) of 40 C.F.R. § 60.58b. [40 C.F.R. § 60.58b (b), as referenced by 40 C.F.R. § 60.36b, and 06-096 C.M.R. ch. 121]

At a minimum, valid CEMS hourly averages shall be obtained for 90% of the operating hours per calendar quarter and 95% of the operating days per calendar year that the affected facility is combusting MSW. All valid CEMS data shall be used in calculating average emission concentrations and percent reductions even if these minimum CEMS data requirements are not met. [40 C.F.R. § 60.58b (e) and (i), as referenced by 06-096 C.M.R. ch. 121]

The 24-hour daily arithmetic averages and 24-hour geometric means specified in this license shall be calculated from one-hour arithmetic averages expressed in parts per million by volume corrected to 7% oxygen (dry basis). The one-hour arithmetic averages shall be calculated using the data points generated by the CEMS. At least two data points representing two 15-minute quadrants shall be used to calculate each one-hour arithmetic average. [40 C.F.R. § 60.58b (h), as referenced by 06-096 C.M.R. ch. 121]

K. Periodic Monitoring

1. PERC shall periodically monitor and record the following values for MWC #1 and MWC #2 and their associated air pollution control equipment whenever the equipment is operating.

MWC #1 and MWC #2 (*each*)				
Value	**Units of Measure**	**Monitoring Tool/Method**	**Frequency**	
			Monitor	**Record**
Operating Time	Hours	Boiler control system (DCS)	Daily, monthly, and annually (calendar year basis)	
Inspection of baghouses	--	Visual	Weekly	
Fossil fuel use	gal or mmscf	Fuel meter	Daily, Monthly, 12-month rolling total (to calculate and document annual capacity factor)	

Inspections of baghouses shall include visual inspection of door seals, poppet flow control valves, and valve seals.

2. PERC shall conduct emissions testing for arsenic (As), nickel (Ni), chromium (Cr), and beryllium (Be) using EPA Method 29 of 40 C.F.R., Part 60, Appendix A, or in any other manner as approved by the Department. Testing shall be conducted according to a testing schedule as approved by the Department but in no case shall the interval between testing exceed three years. [06-096 C.M.R. ch. 121 (5)(D)(5)]

3. For MWC #1 and MWC #2, PERC may conduct emissions testing on each effluent or on the combined effluent exhausted through the common stack. If testing in the common stack measures an exceedance of the standard, then the test results shall represent an exceedance from each MWC, unless PERC can

demonstrate to the satisfaction of the Department that the excess emissions did not occur from one of the units. [06-096 C.M.R. ch. 121]

4. When conducting emissions testing in the common stack for particulate matter, hydrogen chloride, lead, cadmium, or dioxins/furans, the two MSW units shall operate at the same unit load capacity during the test; and common stack testing is only permitted when the common stack test results measure 50% or less of the emission limit specified for each pollutant in 06-096 C.M.R. ch. 121 (5)(a), except for mercury. Common stack testing for mercury is authorized when the concentration limit for mercury is not exceeded. [06-096 C.M.R. ch. 121 (5)(D)(2)(a)]

L. Parameter Monitoring

PERC shall monitor and record the following parameters for MWC #1 and MWC #2 and their associated air pollution control equipment whenever the equipment is operating.

MWC #1 and MWC #2 (*each*)				
Value	**Units of Measure**	**Monitoring Tool/Method**	**Frequency**	
			Monitor	**Record**
Steam flow and/or feedwater flow	Pounds per hour	Flow meter	Continuously	Hourly and 4-hour block
Fabric filter inlet temperature	°F	Thermocouple	Continuously	

All signal conversion elements associated with steam or feedwater measurements shall be calibrated according to the manufacturer's instructions before each dioxin/furan performance test, such that calibration is conducted at least once per year. [40 C.F.R. Part 60, Subpart Eb, § 60.58b (i)(6)(iv) as referenced by 06-096 C.M.R. ch. 121]

M. Operator Training and Certification

In accordance with the requirements of 06-096 C.M.R. ch. 121 and 40 C.F.R. Part 60, Subpart Cb, the operator training and certification requirements of 40 C.F.R. Subpart Eb apply to all facilities with large municipal waste combustor units such as MWC #1 and MWC #2. Thus, according to § 60.54b of Subpart Eb, the following requirements are applicable to this facility:

1. Each chief facility operator and shift supervisor, each as defined in 40 C.F.R. Part 60, Subpart Eb, shall obtain and maintain a current operator certification from either the American Society of Mechanical Engineers [QRO-1-1994]* or an equivalent, State-approved certification program.

   * The QRO Certification Program is based on the American Society of Mechanical Engineers (ASME) QRO-1 Standard for the Qualification and Certification of Resource Recovery Facility Operators.

2. PERC shall not operate the facility at any time without either a fully certified chief facility operator or a fully certified shift supervisor on duty and on-site.

3. If both the certified chief facility operator and the certified shift supervisor are unavailable, a provisionally certified control room operator on-site at the MWC unit may fulfill the certified operator requirement. Depending on the length of time that a certified chief facility operator and certified shift supervisor are away, PERC must comply with differing requirements. For the durations specified in the table below when the certified chief facility operator and certified shift supervisor are both off-site **and** no other certified operator is on-site, PERC shall comply with the corresponding requirement(s), as specified. In each case, the provisionally certified control room operator may perform the duties of the certified chief facility operator or certified shift supervisor.

Duration	**Then…**
12 hours or less	The provisionally certified control room operator may perform the duties of the certified chief facility operator or certified shift supervisor. No additional requirements are applicable.
more than 12 hours but not more than two weeks	The provisionally certified control room operator may fulfill the certified operator requirement with no required notice to or approval from the Department. **However**, PERC must record the period(s) when the certified chief facility operator and certified shift supervisor are off-site and include that information in the annual report.
more than two weeks	The provisionally certified control room operator may fulfill the certified operator requirement with no required approval from the Department. **However**, PERC must fulfill the following requirements: (1) Notify the Department in writing, stating what caused the absence and what actions are being taken by PERC to ensure that a certified chief facility operator or certified shift supervisor is on-site as expeditiously as practicable. (2) Submit a status report and corrective action summary to the Department every four weeks following the initial notification. If the Department provides notice that the status report or corrective action summary is disapproved, the MWC unit may continue operation for 90 days, but then must cease operation. If corrective actions are taken in the 90-day period such that the Department withdraws the disapproval, the MWC unit may continue operation.

4. A provisionally certified operator who is newly promoted or recently transferred to a shift supervisor position or a chief facility operator position at the facility may perform the duties of the certified chief facility operator or certified shift supervisor without notice to or approval by the Department for up to six months before taking the ASME QRO certification exam.

5. PERC shall develop and update yearly a site-specific operating manual that shall, at a minimum, address the following elements of MWC unit operation:
   a. A summary of the applicable air emission license standards;
   b. A description of basic combustion theory applicable to a MWC unit;
   c. Procedures for receiving, handling, and feeding municipal solid waste;
   d. MWC unit startup, shutdown, and malfunction procedures;
   e. Procedures for maintaining proper combustion air supply levels;
   f. Procedures for operating the MWC unit within air emission license standards;
   g. Procedures for responding to periodic upset or off-specification conditions;
   h. Procedures for minimizing particulate matter carryover;
   i. Procedures for handling ash;
   j. Procedures for monitoring MWC unit emissions; and
   k. Reporting and recordkeeping procedures.

   The operating manual shall be kept in a readily accessible location for all persons required to undergo training. The operating manual and records of training shall be available for inspection by the EPA or its delegated enforcement agency upon request.

6. PERC shall establish and maintain an ongoing training program to review the operating manual with each person who has responsibilities affecting the operation of the unit, including but not limited to chief facility operators, shift supervisors, control room operators, ash handlers, maintenance personnel, and crane/load handlers, by the date prior to the day the person assumes such responsibilities and then annually thereafter.

N. Recordkeeping [40 C.F.R. Part 60, Subpart Eb, § 60.59b, as referenced by 40 C.F.R. Part 60, Subpart Cb and 06-096 C.M.R. ch. 121]

PERC shall maintain records of the following information for a period of at least six years. These records shall be readily available for submittal to the Department or review on site by an inspector.

1. The calendar date of each record.

Emissions and Parameters Data [40 C.F.R. § 60.59b (d)]

2. The emission concentrations and parameters using continuous monitoring systems specified in this license and as follows:
   a. All six-minute average opacity values from the COMS;
   b. All one-hour average SO_2, NO_x, and CO emission concentrations and associated O_2 data from the CEMS;
   c. All four-hour block arithmetic average MWC unit load levels;
   d. All four-hour block arithmetic average PM control device inlet temperatures.

3. The average concentrations and percent reductions specified below, as applicable, shall be computed, recorded, and available for submittal to the Department or for review on-site by a Department representative:
   a. All 24-hour daily geometric average SO_2 emission concentrations and all 24-hour daily geometric average percent reductions in SO_2 emissions;
   b. All 24-hour daily arithmetic average NO_x emission concentrations;
   c. All 4-hour block average CO emission concentrations;
   d. All 4-hour block arithmetic average MWC unit load levels and PM control device inlet temperatures.

4. Identification of the calendar dates and times (hours) for which valid hourly data as required have not been obtained, or required continuous automated sampling systems were not operated, including reasons for not obtaining the data and a description of corrective actions taken, for the following:
   a. SO_2 emissions data;
   b. NO_x emissions data;
   c. CO emissions data;
   d. MWC unit load data;
   e. PM control device inlet temperature data.

5. Identification of each occurrence that SO_2 emissions data, NO_x emissions data, or operational data (*i.e.*, CO emissions, unit load, and PM control device inlet temperature) have been excluded from the calculation of average emission concentrations or parameters, and the reasons for excluding the data.

6. The results of daily drift tests and quarterly accuracy determinations for SO_2, NO_x, CO, and associated O_2 CEMS.

7. Identification of the calendar dates when any emission concentrations, percent reductions, opacities, or operating parameters were above the applicable limits, with reasons for such exceedances and descriptions of corrective actions taken.

Training Records [40 C.F.R. § 60.59b (d)]

8. Records showing the names of the MWC chief facility operator, shift supervisors, and control room operators who have been fully or provisionally certified by the American Society of Mechanical Engineers or an equivalent State-approved certification program, including the dates of initial and renewal certifications and documentation of current certification.

9. Records showing the names of the MWC chief facility operator, shift supervisors, and control room operators who have completed the EPA municipal waste combustor operator training course or a State-approved equivalent course, including documentation of training completion.

10. Records of when a certified operator is temporarily off site, including the following:
    a. If the certified chief facility operator and certified shift supervisor are off-site for more than 12 hours, but for two weeks or less, and no other certified operator is on-site, record the dates that the certified chief facility operator and certified shift supervisor were off-site.
    b. When all certified chief facility operators and certified shift supervisors are off-site for more than two weeks and no other certified operator is on-site, keep records of four items:
        (1) Time of day that all certified persons are off-site.
        (2) The conditions that cause those people to be off-site.
        (3) The corrective actions taken by PERC to ensure a certified chief facility operator or certified shift supervisor is on-site as soon as practicable.
        (4) Copies of the written reports submitted every four weeks that summarize the actions taken by PERC to ensure that a certified chief facility operator or certified shift supervisor will be on-site as soon as practicable.

11. Records showing the names of persons who have completed a review of the operating manual, including the date of the initial review and subsequent annual reviews.

O. Reporting

1. Semiannual Reporting Requirements
   [40 C.F.R. Part 60, Subpart Cb, § 60.59b]

   PERC shall submit a semiannual report that includes the following information for any recorded pollutant or parameter that does not comply with the applicable pollutant or parameter limit.

a. The semiannual report shall include monitored information for SO_2, NO_x, CO, MWC unit load level, PM control device inlet temperature, and opacity.

b. If the test reports document any particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, or fugitive ash emission levels that were above the applicable pollutant limits, the semiannual report shall include a copy of the test report documenting the emission levels and the corrective actions taken.

2. Incinerator Malfunction or Breakdown

PERC shall notify the Department within 48 hours in writing of any malfunction or breakdown in any component part of a MWC which causes an emission standard to be violated. [06-096 C.M.R. ch. 104 (3)]

P. Ancillary Equipment: Ash Handling System and Front End Process Residue Handling

Ash Handling System

The Ash Handling System consists of quench tanks, ash conveyors, surge bins, conditioners, and the load-out building utilized to collect ash from the combustion process and prepare it for disposal. The building is enclosed and has no vents or exhaust fans. All conveyors between the boiler building or pollution control equipment and the load-out building are also enclosed. Bottom ash and fly ash are each conditioned with water to render the product dustless prior to discharge onto open conveyors and into open containers. Ash containers (trailers) are kept inside the building until full and ready for final disposal, and are then moved outside for transport to the landfill.

Trailers on-site containing ash shall not sit outside and uncovered for greater than 24 hours before being removed for transport to the landfill. If an ash-containing trailer is to be on-site and outside for longer than 24-hours, **or** if visible emissions from an outside ash-containing trailer are observed at any time, the trailer contents shall be covered with a tarp or other barrier as soon as practicably possible to prevent fugitive emissions. [06-096 C.M.R. ch. 140, BPT]

Front End Process Residue Handling

Glass, grit, and other non-combustibles, referred to as front end process residue, are separated out from combustible materials in the incoming waste stream and collected for disposal in containers (trailers) inside the building. Like the trailers containing ash residues, trailers of front end process residue are moved outside once they are full. Potential emissions of concern from these trailers are MSW-related odors.

Trailers of front end process residue shall not remain outside of the building and on-site for greater than 24 hours before being removed for transport to the landfill. [06-096 C.M.R. ch. 140, BPT]

1. New Source Performance Standards (NSPS)

   Visible emissions from the Ash Handling System are regulated by the NSPS requirements of *Emissions Guidelines and Compliance Times for Large Municipal Waste Combustors that are Constructed On or Before September 20,* 1994, 40 C.F.R. Part 60, Subpart Cb.

2. Emission Limits and Streamlining

   PERC accepts streamlining for fugitive visible emissions requirements. Regulations 40 C.F.R. Part 60, Subpart Cb; 06-096 C.M.R. ch. 101; and 06-096 C.M.R. ch. 121 contain visible emissions limits applicable to PERC's Ash Handling System. The visible emission limit identified in Subpart Cb and in 06-096 C.M.R. ch. 121 is more stringent; therefore, only this visible emissions limit shall be required by this license.

Applicable Standard	Origin and Authority	Licensed Limit
≤ 5% of observation period (i.e., nine minutes per three-hour period), determined per EPA Method 22	**40 C.F.R. Part 60, Subpart Cb, § 60.36b** and **06-096 C.M.R. ch. 121 (5)(A)(10)**	no visible emissions for more than 5% of the observation period (i.e., nine minutes in any three-hour period)
≤ 20%, except no more than five minutes in any one-hour period	06-096 C.M.R. ch. 101(2)(B)(4)	

Fugitive ash visible emission limitations do not cover visible emissions discharged inside buildings or enclosures of ash conveying systems or visible emissions discharged to the atmosphere from buildings or enclosures of ash conveying systems; and do not apply during maintenance and repair of ash conveying systems.

[40 C.F.R. § 60.55b, as referenced by 40 C.F.R. § 60.36b and 06-096 C.M.R. ch. 121]

3. Emission Limit Compliance Methods

   Compliance with the visible emissions limit for the Ash Handling System shall be demonstrated annually, in accordance with EPA Reference Method 22 in 40 C.F.R. Part 60, Appendix A.

   The minimum observation time shall be a series of three one-hour observations. The observation period shall include times when the facility is transferring ash from the MWCs to the area where ash is stored or loaded into containers or trucks. The average duration of visible emissions per hour shall be calculated from the three one-hour observations. The average shall be used

to determine compliance with the fugitive ash visible emission limit. [06-096 C.M.R. ch. 121]

Ash from each MWC and all ash and non-combustible materials culled from the ash handling system shall be sufficiently conditioned with water to render it dust-free, or shall be stored in covered containers or in a leak tight enclosure so as to prevent fugitive emissions. [06-096 C.M.R. ch. 140, BPT]

Q. Ancillary Equipment: Process Air Handling System/Tipping Floor Ventilation

The Process Air Handling System is used to provide tipping floor ventilation and odor abatement in the process area. Air is drawn from the tipping floor and fuel processing and storage areas, through collection ducts and mesh filters, and then into the boiler forced draft fans, to be used as MWC combustion air. Entrained odors are destroyed by combustion in the MWCs.

PERC will operate the ventilation fans as necessary for odor abatement.

During periods when refuse is not being received, the truck entry doors shall remain in the closed position except when operating conditions require that they be open to permit rolling stock or trailers to move in or out of the building or to provide adequate ventilation for personnel. The truck entry doors may be opened up to six feet as measured from the tipping floor when the ventilation fans do not move sufficient air to protect the health and safety of the personnel in the building.

[A-355-70-A-I (July 1, 2002) and A-355-70-B-M (October 8, 2003), BPT]

Visible emissions from the process air handling system have previously been subject to an opacity limit. The process air handling system, as originally constructed, vented to two baghouses, which then exhausted to the atmosphere. Since then, the emission point was eliminated, such that the baghouses were removed, filters put in place, and the outlet directed to the forced draft fan inlets in the boiler house. Thus, the opacity limit on the now-nonexistent emission point has been omitted from this license renewal.

R. Ancillary Equipment: Lime Silo

The Lime Silo stores quicklime before it is slaked and sprayed into the spray dryer absorbers of the combustors. A small baghouse on top of the silo is used to control PM emissions during the filling operations.

PERC accepts streamlining for opacity requirements applicable to the silo, as identified in the following table. Therefore, only the most stringent requirement for the opacity of Lime Silo emissions is included in this license.

Applicable Standard	Origin and Authority	Licensed Limit
10% opacity, on a six-minute block average basis	**A-355-70-A-I (July 1, 2002), BPT**	10% opacity, on a six-minute block average basis
10% opacity, on a six-minute block average basis, except for one six-minute average in any one-hour period	06-096 C.M.R. ch. 101 (2)(B)(3)(c)	

PERC shall maintain and operate a baghouse to control emissions during Lime Silo filling operations, and shall not conduct filling operations without the proper use of the baghouse.

PERC shall maintain monthly records of the quantity of lime loaded to the silo and of maintenance conducted on the baghouse.

S. Ancillary Equipment: Smoke Ventilators [A-355-71-J-M (July 19, 1999), BPT]

PERC shall install smoke ventilators at the facility as necessary. The smoke ventilators shall be kept in the weather-tight closed position at all times except in the event of an emergency.

PERC shall submit written notification to the Department prior to the installation of any smoke ventilators. The notification shall include the proposed date of installation and the reason(s) why the ventilator is needed in the specific area as proposed.

T. Emergency Generators and Engines

PERC operates one Emergency Generator. The Emergency Generator is a generator set consisting of an engine and an electrical generator. The Emergency Generator has an engine rated at 2.0 MMBtu/hour (205 kW).

PERC also operates a Fire Pump rated at 1.3 MMBtu/hour (187 hp) and an Emergency Feedwater Pump Engine rated at approximately 1.2 MMBtu/hour (170 hp).

The Emergency Generator and the Fire Pump were manufactured in 1986, and the Emergency Feedwater Pump Engine was also manufactured prior to 1988.

All three units fire distillate fuel supplied from a tap off the fuel oil system loop feeding the main boilers. As such, the fuel sulfur content shall be consistent with the fuel oil sulfur content limitations for the MWC units, as specified in this license.

1. New Source Performance Standards (NSPS)

   Because of the year of manufacture of these units, they are not subject to NSPS 40 C.F.R. Part 60, Subpart IIII, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE).*

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

   The federal regulation 40 C.F.R. Part 63, Subpart ZZZZ, *National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines*, is applicable to PERC's Emergency Generator, Fire Pump Engine, and Emergency Feedwater Pump Engine. The units are considered existing, emergency stationary reciprocating internal combustion engines at a major HAP source; and EPA's memo dated August 9, 2010 (*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 or equipment failure;
      - 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.

(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 50 hours per calendar year operating limit for other non-emergency situations cannot be used for peak shaving, demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

PERC's Emergency Generator and Fire Pump and Emergency Feedwater Pump Engine shall each be limited to the usage outlined in 40 C.F.R. § 63.6640(f) and therefore may be classified as existing emergency stationary RICE under 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 the affected unit to not be considered an emergency engine and therefore subject to all the requirements for a non-emergency engine.

b. 40 CFR Part 63, Subpart ZZZZ Requirements

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

For each compression ignition engine (the Emergency Generator, the Fire Pump, and the Emergency Feedwater Pump Engine), PERC shall comply with the following operating limitations:

(i) Change oil and filter every 500 hours of operation or annually, whichever comes first;
(ii) Inspect the air cleaner every 1000 hours of operation or annually, whichever comes first, and replace as necessary; and
(iii) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

The units shall be operated and maintained according to the manufacturer's emission-related written instructions, or PERC shall develop a maintenance plan which provides to the extent practicable for the maintenance and operation of each 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
PERC has the option of utilizing an oil analysis program which complies with the requirements of 40 C.F.R. § 63.6625(i) to extend the specified oil change requirement. If this option is used, PERC must keep records of the parameters that are analyzed as part of the program, the results of each analysis, and the oil changes for each engine. The analysis program must be part of the maintenance plan for each 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 each RICE unit. [40 C.F.R. § 63.6625(f)]

(4) Startup Idle and Startup Time Minimization Requirements
During periods of startup, the facility must minimize each engine's time spent at idle and minimize each 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 Table 2d of 40 C.F.R. Part 63, Subpart ZZZZ]

(5) Annual Time Limit For Maintenance and Testing
The units shall each 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 (this does not include peak shaving, non-emergency demand response, or to generate income for a facility by providing power to an electric grid or otherwise supplying power as part of a financial arrangement with another entity. [40 C.F.R. § 63.6640(f)]

(6) Recordkeeping
PERC shall keep records that include maintenance conducted on the Emergency Generator, on the Fire Pump, and on the Emergency

Feedwater Pump Engine, and the hours of operation of each engine recorded through its non-resettable hour meter. Documentation shall include the number of hours of emergency operation, including what classified the operation as emergency, and the number of hours of non-emergency operation. [40 C.F.R. § 63.6655(e) and (f)]

3. BACT/BPT Emission Limits

The BACT/BPT emission limits for the Emergency Generator, the Fire Pump, and the Emergency Feedwater Pump Engine are based on the following:

PM, PM_{10}	0.31 lb/MMBtu; AP-42 Table 3.3-1 (10/96)
SO_2	0.5 lb/MMBtu; based on combustion of distillate fuel with a maximum sulfur content of 0.5% sulfur by weight
NO_x	4.41 lb/MMBtu; AP-42 Table 3.3-1 (10/96)
CO	0.95 lb/MMBtu; AP-42 Table 3.3-1 (10/96)
VOC	0.36 lb/MMBtu; AP-42 Table 3.3-1 (10/96)
Visible Emissions	06-096 C.M.R. ch. 140, BPT

The BPT emissions limits for the Emergency Generator, the Fire Pump, and the Emergency Feedwater Pump Engine are the following:

Unit	PM (lb/hr)	PM_{10} (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Emergency Generator 2.0 MMBtu/hr, distillate fuel	0.62	0.62	1.00	8.82	1.90	0.72
Fire Pump 1.3 MMBtu/hr, distillate fuel	0.40	0.40	0.65	5.73	1.24	0.47
Emergency Feedwater Pump Engine 1.2 MMBtu/hr, distillate fuel	0.37	0.37	0.60	5.29	1.08	0.43

Visible emissions from the Emergency Generator, from the Fire Pump, and from the Emergency Feedwater Pump Engine shall not exceed 20% opacity on a six-minute block average basis.

4. Emission Limit Compliance Methods

Compliance with the emission limits associated with the Emergency Generator, the Fire Pump, and the Emergency Feedwater Pump Engine shall be demonstrated in accordance with the appropriate test methods upon request of the Department.

5. Periodic Monitoring

PERC shall monitor and record parameters for the Emergency Generator, the Fire Pump, and the Emergency Feedwater Pump Engine as indicated in the following table whenever the equipment is operating.

Parameter	Units of Measure	Monitoring Tool/Method	Frequency
Distillate fuel sulfur content	Percent, by weight	Fuel receipts from supplier	As fuel is purchased
Operating time	Hours	Hour Meter	Monthly and 12-month rolling total
Type of Operation (emergency, maintenance, etc.)	N/A	Records	As use occurs

A non-resettable hour meter shall be installed and operated on each unit. [A-355-72-F-A (May 31, 1995), NO_x RACT]

6. Parameter Monitors

There are no Parameter Monitors required for the Emergency Generator, the Fire Pump, or the Emergency Feedwater Pump Engine.

7. CEMS and COMS

There are no CEMS or COMS required for the Emergency Generator, the Fire Pump, or the Emergency Feedwater Pump Engine.

U. Parts Washer

The Parts Washer used at PERC has a 20-gallon capacity and uses water-based solvent. There are no applicable requirements for this Parts Washer per 06-096 C.M.R. ch. 130, *Solvent Degreasers,* (as amended).

V. Facility Annual Emissions

1. Total Annual Emissions

PERC is licensed for the following annual emissions, based on a 12-month rolling total. The tons/year limits were calculated based on the following:

- 8,760 hours/year of operation of MWC #1 and MWC #2 at their combined lb/hour limits; and
- 100 hours/year each of operation of the Emergency Generator, Fire Pump, and Emergency Feedwater Pump Engine, each at their respective lb/hour limits.

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

	PM	PM_{10}	SO_2	NO_x	CO	VOC
MWC #1 and MWC #2 (combined emissions)	31.5	31.5	105.1	599.2	314.9	63.1
Emergency Generator, Fire Pump, and Feedwater Pump Engine	0.1	0.1	0.1	1.0	0.2	0.1
Total TPY	**31.6**	**31.6**	**105.2**	**600.2**	**315.1**	**63.2**

2. Greenhouse Gases

Greenhouse gases are considered regulated pollutants as of January 2, 2011, through 'Tailoring' revisions made to EPA's *Approval and Promulgation of Implementation Plans,* 40 C.F.R. Part 52, Subpart A, §52.21, *Prevention of Significant Deterioration of Air Quality* rule. Greenhouse gases, as defined in 06-096 C.M.R. ch. 100 (as amended), are the aggregate group of the following gases: carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. For licensing purposes, greenhouse gases (GHG) are calculated and reported as carbon dioxide equivalents (CO_2e).

The quantity of CO_2e emissions from this facility is less than 100,000 tons per year, based on the following:

- the facility's fuel use capacity;
- worst case emission factors from the following sources: U.S. EPA's AP-42, the Intergovernmental Panel on Climate Change (IPCC), and 40 C.F.R. Part 98, *Mandatory Greenhouse Gas Reporting*; and
- global warming potentials contained in 40 C.F.R. Part 98.

No additional licensing actions to address GHG emissions are required at this time.

IV. AMBIENT AIR QUALITY ANALYSIS

PERC previously submitted an ambient air quality analysis demonstrating that emissions from the facility, in conjunction with all other sources, do not violate ambient air quality standards [see license A-355-72-A-N (February 26, 1986)]. 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-355-70-E-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 PERC pursuant to the Department's preconstruction permitting requirements in 06-096 C.M.R. ch. 108 or 115 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 license. 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 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 in an application dated December 14, 2006, and other information gathered subsequent to the application submittal.

Permit Shield Table
[06-096 C.M.R. ch. 140]

Source	Citation	Description	Basis for Determination
Petroleum Tank	06-096 C.M.R. ch. 111	Petroleum Liquid Storage Vapor Control	All petroleum stored is less than 1.52 psia.
Facility	06-096 C.M.R. ch. 134	Reasonably Available Control Technology for Facilities That Emit Volatile Organic Compounds (VOC RACT)	VOC source is combustion source and exempt per 06-096 C.M.R. ch.134 (1)(C)(4).
MWC #1, MWC #2	06-096 C.M.R. ch. 145	NO_x Control Program	Each of the MWCs are below the applicability threshold input capacity of 250 MMBtu/hour.
Facility	40 C.F.R. Part 61	National Emission Standards for Hazardous Air Pollutants	There are no applicable requirements under Part.
MWC #1, MWC #2	40 C.F.R. Part 63	National Emission Standards for Hazardous Air Pollutants for Source Categories	There are no applicable requirements under Part.
MWC #1, MWC #2	40 C.F.R. Part 64	Compliance Assurance Monitoring	Exempt per 40 C.F.R. § 64.2(b)(1)
Storage Tanks	40 C.F.R. Part 68	Accidental Release Prevention	Chemicals stored on-site are stored at quantities less than threshold quantities.
Facility	40 C.F.R. Parts 72 to 78	Federal Acid Rain Provisions	Facility is not subject to the provisions and does not choose to "opt-in" at this time.

(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 have 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 Chapter 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 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, all original 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.A. § 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. 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 at least annually, 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) MWC #1 and MWC #2

A. Allowable Fuels / Wastes and Storage

1. MWC #1 and MWC #2 are licensed to fire RDF (refuse derived fuel) consisting of waste types 0, 1, 2, 3, 5, and 6, as defined in 06-096 C.M.R. ch. 100. [A-355-70-A-I (July 1, 2002), BPT]

2. Each MWC shall fire only RDF (refuse derived fuel) including supplemental waste wood and wood chips and TDF (tire derived fuel). [A-355-70-A-I (July 1, 2002), BPT]

3. Auxiliary fuel use shall be limited to natural gas and distillate fuel. [A-355-70-A-I (July 1, 2002), BPT]

4. Waste classified as RCRA hazardous wastes, low level radioactive wastes, and red bag medical wastes are unacceptable wastes and shall not be combusted in the MWCs. [A-355-70-A-I (July 1, 2002), BPT]

5. PERC shall record and maintain records of the amount of fossil fuels and municipal-type solid waste combusted during each day and calculate the annual capacity factor (actual heat input during a calendar year compared to the maximum steady state design heat input capacity) for each fuel individually for the reporting period. The annual capacity factor is determined on a 12-month rolling average basis, with a new annual capacity factor calculated at the end of each calendar month. [40 C.F.R. Part 60, Subpart Db, § 60.49b (d)]

6. Fossil fuel use shall be limited to a combined annual capacity factor of 10% or less per calendar year, calculated in accordance with 40 C.F.R. Part 60, Subpart Db. [40 C.F.R. Part 60 Subpart Db]

7. PERC shall obtain and maintain on-site fuel records from the supplier which certify that the fuel oil and gaseous fuel meet the respective definition of distillate oil and natural gas as found in 40 C.F.R. § 60.41b, and document compliance with the applicable sulfur limit. Reports shall be submitted to the Department and EPA certifying that only distillate fuel and/or natural gas meeting this definition were combusted as auxiliary fuel in the affected facility during the reporting period. [40 C.F.R. Part 60, Subpart Db, § 60.42b (d)]

8. PERC shall not use the tipping floor or bunkers as MSW storage areas during times of prolonged facility outages or maintenance. There shall be no outside storage of MSW. [A-355-72-A-N (February 26, 1986), BACT]

B. Fossil Fuels — Enforceable by State-only

1. Prior to July 1, 2018, distillate fuel fired at the facility shall have a maximum sulfur content of 0.5% by weight. [06-096 C.M.R. ch. 140, BPT]

2. Beginning July 1, 2018, distillate fuel fired at the facility shall have a maximum sulfur content of 0.0015% by weight (15 ppm). [38 M.R.S. § 603-A(2)(A)(3) and 06-096 C.M.R. ch. 140, BPT]

3. Sulfur content compliance shall be demonstrated by fuel delivery receipts or purchase records from the supplier. [A-355-70-A-I (July 1, 2002), BPT]

C. Emission Limits

1. Emissions from MWC #1 and MWC #2 shall not exceed the following limits:

Pollutant	Licensed Emission Limits	Origin and Authority
PM	22.9 mg/dscm @ 7% O_2	A-355-72-A-N (February 26, 1986), BACT and A-355-70-A-I (July 1, 2002), BPT
	0.10 lb/MMBtu	40 C.F.R. Part 60, Subpart Db, § 60.43b (d)
	7.2 lb/hr, combined emissions	A-355-70-A-I (July 1, 2002), BPT Enforceable by State-only
PM_{10} (filterable only)	5.8 lb/hr, combined emissions	A-355-70-A-I (July 1, 2002), BPT Enforceable by State-only
SO_2	29 ppmdv @ 7% O_2 or 80% reduction by weight or volume (whichever is less stringent); 24-hour daily geometric mean	06-096 C.M.R. ch. 121 (5)(A)(5)
	24.0 lb/hr, combined emissions	A-355-70-A-I (July 1, 2002), BPT Enforceable by State-only
NO_x	230 ppmdv @ 7% O_2, 24-hour block arithmetic average basis (combined stack)	A-355-71-K-A (February 18, 2000), NO_x RACT
	136.8 lb/hr, combined MWC #1 and #2 emissions	A-355-70-A-I (July 1, 2002), BPT Enforceable by State-only
CO	200 ppmdv @ 7% O_2, 24-hour block average basis, calculated as an arithmetic average	Table 3 to Subpart Cb of 40 C.F.R. Part 60 and 06-096 C.M.R. ch. 121 (5)(A)(9)
	111.11 lb/hr, combined emissions*	Based on equivalent emissions as found in A-355-72-A-N (February 26, 1986), BACT
VOC	69 ppmdv @ 7% O_2	A-355-72-A-N (February 26, 1986), BACT
	14.4 lb/hr, combined emissions	A-355-70-A-I (July 1, 2002), BPT Enforceable by State-only
Cadmium (Cd)	35 µg/dscm (0.035 mg/dscm) @ 7% O_2	40 C.F.R. Part 60, Subpart Cb, § 60.33b (a)(2) and 06-096 C.M.R. ch. 121 (5)(A)
Mercury (Hg)	28 µg/dscm @ 7% O_2 or 85% reduction by weight (whichever is less stringent)	06-096 C.M.R. ch. 121 (5)(A)(4)
	25 lb/year or 90% reduction by weight	38 M.R.S.A. §585-B, §§5 Enforceable by State-only
Lead (Pb)	0.098 mg/dscm @ 7% O_2 (98 µg/dscm @ 7% O_2)	A-355-72-A-N (February 26, 1986), BACT

Pollutant	Licensed Emission Limits	Origin and Authority
HCl	29 ppmdv @ 7% O_2 or 95% reduction by weight or volume (whichever is less stringent)	40 C.F.R. Part 60, Subpart Cb, § 60.33b (b)(3)(ii) and 06-096 C.M.R. ch. 121 (5)(A)(6)
Dioxins/Furans**	25 ng/dscm (total mass) @ 7% O_2	06-096 C.M.R. ch. 121 (5)(A)(7)
** The designation Dioxins/Furans represents polychlorinated dibenzo-dioxins and polychlorinated dibenzo-furans, also identified as PCDD/PCDF.		

* In accordance with the facility's initial Part 70 license A-355-70-A-I (July 1, 2002), for periods of firing fossil fuel in one or both boilers and during unit warmup, PERC may demonstrate compliance with a mass emission limit (lb/hr) as an alternate to the ppmdv limit identified in the table above. Specifically, PERC may demonstrate compliance with a CO mass emission limit of 111.11 lb/hr, on a 24-hour block average basis, on those days during which fossil fuel is fired for more than one full hour in one or both MWCs. The mass emission rate shall be calculated in accordance with the agreement between PERC and the Department for such calculations, as outlined in a letter from PERC to the Department dated June 28, 2002. This method may not be used on days that both boilers are fired exclusively on solid fuel, and its use is limited to no more than nine calendar days per calendar quarter.

The above caveat notwithstanding, PERC is required by 06-096 C.M.R. ch. 121 and 40 C.F.R. Part 60, Subpart Cb to meet the CO ppmdv limit identified in the table above at all times except during periods of startup, shutdown, and malfunction. Durations of startup, shutdown, or malfunction periods are limited to three hours per occurrence except under circumstances as described in 40 C.F.R. § 60.58b (a)(1)(iii). [40 C.F.R. § 60.58b (a)(1)]

In accordance with 40 C.F.R. Part 60, Subpart A, § 60.2, *Definitions*, "Malfunction" means any sudden, infrequent, and **not** reasonably preventable …

- Failure of air pollution control equipment;
- Failure of process equipment; or
- Failure of a process to operate in a normal or usual manner.

Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

2. Visible emissions from MWC #1 and MWC #2 shall not exceed 10% opacity on a six-minute block average basis. [A-355-72-A-N (February 26, 1986) and 06-096 C.M.R. ch. 121 (5)(A)(2) and 40 C.F.R. Part 60, Subpart Cb, § 60.33b (a)(1)(iii)]

D. Compliance Methods [A-355-70-A-I (July 1, 2002) and A-355-70-D-A (July 8, 2005), BPT]

Compliance with the emission limits associated with MWC #1 and MWC #2 shall be demonstrated in accordance with the methods and frequencies indicated in the table below or other methods or frequencies as approved by the Department.

Although Standard Condition (8) requires submission of "... a written report to the Department within thirty (30) days from the date of test completion", a different (longer) timeframe is allowed under 06-096 C.M.R. ch. 121 and in applicable federal NSPS regulations. As specified in 06-096 C.M.R. ch. 121 and 40 C.F.R. Part 60, Subpart Eb, a written report shall be submitted within sixty (60) days from the date of test completion. The test completion date shall be considered the date upon which sampling of stack gases associated with the specific emissions test is concluded.

Pollutant	Applicable Emission Limit	Compliance Method	Frequency
PM	mg/dscm @ 7% O_2 lb/MMBtu lb/hr	40 C.F.R. Part 60, App. A, Method 5	Annually *
PM_{10}	lb/hr	40 C.F.R. Part 60, App. A, Method 5 or EPA Test Method 201 or 201A	As requested
SO_2	ppmdv @ 7% O_2 or percent reduction	SO2 CEMS based on a 24-hour daily geometric mean concentration (outlet data) or a 24-hour daily geometric mean percent reduction (inlet and outlet data)	Continuously (in accordance with 40 C.F.R. Part 60, App. B)
SO_2	lb/hr	40 C.F.R. Part 60, App. A, Method 19 or Method 6C	As requested
NO_X	ppmdv @7% O_2	NO_x CEMS on a 24-hour block average basis; midnight to midnight	Continuously (in accordance with 40 C.F.R. Part 60, App. B)
	lb/hr	40 C.F.R. Part 60, App. A, Method 7	As requested
CO	ppmdv @ 7% O_2	CO CEMS, 24-hour daily arithmetic average	Continuously (in accordance with 40 C.F.R. Part 60, App. B)
	lb/hr	40 C.F.R. Part 60, App. A, Method 10	As requested

Pollutant	Applicable Emission Limit	Compliance Method	Frequency
VOC	ppmdv @ 7% O_2 lb/hr	40 C.F.R. Part 60, App. A, Method 25 or 25A	As requested
Cadmium (Cd)	µg/dscm @ 7% O_2	40 C.F.R. Part 60, App. A, Method 29	Annually *
Mercury (Hg)	µg/dscm @ 7% O_2		
Lead (Pb)	µg/dscm @ 7% O_2		
HCl	ppmdv @ 7% O_2	40 C.F.R. Part 60, App. A, Method 26	Annually *
Dioxins/Furans	lb/ton (demonstrated at equivalent lb/hour) and ng/dscm (total mass) @ 7% O_2	40 C.F.R. Part 60, App. A, Method 23	Annually *
Visible Emissions	% opacity, on a six-minute block average basis	COMS on each baghouse outlet duct	Continuously (in accordance with 40 C.F.R. Part 60, App. B)

* Frequency of required compliance demonstrations shall be in accordance with the following detailed definitions and conditional scenarios.

Pertaining to PM, Cd, Hg, and Pb, *annually* shall mean on a calendar year basis, with each subsequent test performed no less than nine and no more than 15 calendar months following the previous performance test. The facility must complete five performance tests in each five-calendar year period. [40 C.F.R. § 60.58b, as referenced by 40 C.F.R. Part 60, Subpart Cb § 60.36b, and 06-096 C.M.R. ch. 121]

Pertaining to HCl, *annually* shall mean on a calendar year basis, with each subsequent test performed no more than 12 calendar months following the previous performance test. [40 C.F.R. § 60.58b, as referenced by 40 C.F.R. Part 60, Subpart Cb § 60.36b, and 06-096 C.M.R. ch. 121]

Pertaining to Dioxins/Furans, *annually* shall mean on a calendar year basis, with each subsequent test performed no less than nine and no more than 15 calendar months following the previous performance test. The facility must complete five performance tests in each five-calendar year period.

An alternative test schedule may apply to Dioxins/Furans testing, in accordance with 06-096 C.M.R. ch. 121(5)(D)(3), which references 40 C.F.R. § 60.58b(g)(5)(iii), including the following:

1. Where all performance tests for Dioxins/Furans over a two-year period indicate that Dioxins/Furans emissions are less than or equal to 7 ng/dscm total mass at 7% O_2 for all affected facilities located within the facility,

PERC may elect to conduct annual performance tests for one of the units per year. At a minimum, a performance test for Dioxins/Furans emissions shall be conducted on a calendar year basis (no less than nine calendar months and no more than 15 months following the previous performance test) for one of the two units at PERC. Under the alternative test schedule, annual testing shall alternate between the two MWC units.

2. If each annual performance test continues to indicate a Dioxins/Furans emission level less than or equal to 7 ng/dscm total mass at 7% O_2, PERC may continue Dioxin/Furans performance testing on only one unit per calendar year. If any annual performance test indicates a Dioxins/Furans emissions level greater than 7 ng/dscm total mass at 7% O_2, performance tests shall thereafter be conducted annually on both units at the facility until and unless all annual performance tests for both units over a two-year period indicate a Dioxins/Furans emission level less than or equal to 7 ng/dscm total mass at 7% O_2. [40 C.F.R. § 60.38b(b)]

(15) **Pollution Control Equipment**

A. PERC shall control particulate matter emissions (PM, PM_{10}), including heavy metals such as cadmium (Cd) and lead (Pb), from each MWC by fabric filters. Fly ash captured by this flue gas treatment shall be conveyed to a mixer conditioner for stabilization with water to reduce risk of dust, and then combined with bottom ash for landfill disposal.
[A-355-72-A-N (February 26, 1986), BACT]

B. Fabric Filters Inlet Temperatures [40 C.F.R. § 60.53b(c), as referenced by 06-096 C.M.R. ch. 121, and A-355-70-A-I (July 1, 2002)]

The four-hour block average particulate matter control device inlet temperature shall not exceed 17°C above the maximum demonstrated particulate matter control device inlet temperature as determined during Dioxins/Furans testing, except for the two weeks prior to and during Dioxins/Furans testing, or if waived by the Department for purposes of evaluating system performance, testing new technology or control technologies, or diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions.

Maximum demonstrated particulate matter control device temperature means the highest four-hour arithmetic average flue gas temperature measured at the particulate matter control device (fabric filters) inlet during four consecutive hours during the most recent Dioxins/Furans performance test demonstrating compliance with the applicable limit for Dioxins/Furans.

C. PERC shall operate a spray dryer absorber followed by fabric filters for each MWC unit to control emissions of sulfur dioxide (SO_2) and acid gases (HCl and acids which form from SO_2, such as H_2SO_3 and H_2SO_4). [A-355-72-A-N (February 26, 1986), BACT]

D. PERC shall maintain records of all pollution control equipment inspection and maintenance. [A-355-72-A-N (February 26, 1986)]

(16) **Operating Specifications**

A. Startup, Shutdown, and Malfunction [40 C.F.R. § 60.58b(a), as referenced by 06-096 C.M.R. ch. 121, and A-355-70-A-I (July 1, 2002), BPT]

Emission standards for MWC #1 and MWC #2 excluding concentration limits (ppm) for CO apply at all times during periods of startup, shutdown, and malfunction. During such times, CO mass emission limits (lb/hr) equivalent to those mass emissions rates modeled in support of the facility's original PSD license shall continue to apply.

1. *MWC warm-up* for each MWC unit shall be defined as the period before startup commences, when only fossil fuel is being fired in the unit.

2. The *startup period* (for both cold and warm startup) for each MWC unit begins when RDF is fed into the feed chute, and does not include any warm-up period when the unit is combusting fossil fuel with no RDF being fed to the combustor. The startup period ends when continuous burning begins.

3. *Continuous burning* is the continuous, semi-continuous, or batch feeding of RDF for purposes of waste disposal, energy production, or providing heat to the combustion system in preparation for waste disposal or energy production. The use of RDF solely to provide thermal protection of the grate or hearth during the startup period when RDF is not being fed to the grate is not considered to be continuous burning.

4. *Emergency shutdown* of a MWC unit begins when RDF is no longer fed into the feed chute for that particular boiler and combustion flows to the primary and/or secondary air fans for that boiler are shut off.

5. Durations of startup, shutdown, or malfunction periods are limited to three hours per occurrence, except as provided for CO emissions in the following paragraph. During periods of startup, shutdown, or malfunction, monitoring data shall be dismissed or excluded from compliance calculations, but shall be recorded and reported in accordance with the provisions of 40 C.F.R. § 60.59b(d)(7).

For the purpose of compliance with the CO emission limits, if a loss of boiler water level control (e.g., boiler waterwall tube failure) or a loss of combustion air control (e.g., loss of combustion air fan, induced draft fan, combustion grate bar failure) is determined to be a malfunction, the duration of the malfunction period is limited to 15 hours per occurrence. During such periods of malfunction, monitoring data shall be dismissed or excluded from compliance calculations, but shall be recorded and reported in accordance with the provisions of 40 C.F.R. § 60.59b(d)(7).

6. *Routine shutdown* of a MWC unit begins when RDF is no longer fed into the feed chute for that particular boiler and combustion flow to the primary and secondary air fans of that boiler continues until all RDF is burned and has been discharged to the ash system.

B. Malfunction or Breakdown Reporting Requirement

PERC shall notify the Department within 48 hours in writing of any malfunction or breakdown in any component part of a MWC which causes an emission standard to be violated. [06-096 C.M.R. ch. 104 (3)]

C. Startup and Shutdown Plan [A-355-70-A-I (July 1, 2002)]

PERC shall maintain a written start-up and shutdown plan that details procedures for operating and maintaining the source during periods of start-up and shutdown and a program of corrective action for malfunctioning process and air pollution control equipment used to comply with the relevant standards. The Start-up and Shutdown Plan, including previous versions of the plan if it is amended, shall be kept on-site and made available to the EPA or the Department upon request.

During periods of start-up and shutdown, PERC shall operate and maintain the source (including associated air pollution control equipment) in accordance with the procedures specified in the start-up and shutdown plan. Records shall be maintained documenting compliance with the written start-up and shutdown plan, including records of the occurrence of and duration for each start-up or shutdown.

Actions taken during a start-up or shutdown which are not consistent with the procedures specified in the start-up or shutdown plan shall be recorded and reported within two working days after commencing actions inconsistent with the plan, and followed by a letter within seven working days after the end of the event if requested by the Department.

If the start-up and shutdown plan fails to address an event that was not included in the plan at the time the plan was developed, PERC shall revise the

start-up and shutdown plan within 45 days after the event to include detailed procedures for operating and maintaining the source during similar events.

D. Stack O_2 Levels during Warm-up and/or Startup, Shutdown, or Malfunction

During warm-up and/or startup, stack O_2 levels that exceed 14.0% may be replaced with a value of 14.0%. In such circumstances, hourly ppmdv averages for SO_2, NO_x, and CO may be recalculated, and the recalculated values used for compliance demonstration purposes. After startup, the use of actual O_2 readings will resume. [A-355-70-A-I (July 1, 2002)]

During a loss of boiler water level control or a loss of combustion air control malfunction period, a diluent cap of 14% O_2 may be used in the emissions calculations for SO_2 and NO_x. [40 C.F.R. § 60.58b (b)(8)]

E. MWC Operating Load Level
[06-096 C.M.R. ch. 121, A-355-70-A-I (July 1, 2002)]

PERC shall comply with the following operating practices:

1. The maximum demonstrated municipal waste combustor unit load shall be determined during each Dioxins/Furans performance test, measured as steam flow or feed water flow. The maximum demonstrated municipal waste combustor unit load is the highest four-hour arithmetic average load achieved during four consecutive hours of the most recent emissions test during which compliance with the Dioxins/Furans emission limit was achieved.

2. Over any four-hour block period, each MWC operating load level shall not exceed 110% of the maximum demonstrated MWC unit load level measured as steam flow or feedwater flow. This restriction shall not apply to the two weeks prior to and during Dioxins/Furans testing, or may be waived in writing by the Department for purposes of evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state of the art for controlling facility emissions.

(17) **Continuous Emission Monitoring (CEMS and COMS)**

A. PERC shall maintain and operate the following continuous emission monitoring systems (CEMS) and the continuous opacity monitoring systems (COMS) for MWC #1 and MWC #2:

Pollutant and Continuous Monitor	Unit of Measurement	Origin and Authority
SO_2 CEMS	ppmdv	06-096 C.M.R. ch. 117
NO_x CEMS	ppmdv	06-096 C.M.R. ch. 117 and 06-096 C.M.R. ch. 138 (3)(G)(2)
CO CEMS (common stack)	ppmdv	06-096 C.M.R. ch. 117 and 121
O_2 CEMS*	%	06-096 C.M.R. ch. 117 and 121
COMS	%	

* at each location where SO_2, NO_x, or CO emissions are monitored

B. For every emission standard which includes an O_2 correction and for which compliance is demonstrated using a CEMS, PERC shall calibrate, maintain, and operate an O_2 CEMS at each location where the pollutant CEMS is operated, and record the output of the system. Each monitoring system shall comply with 06-096 C.M.R. ch. 117 and 121, and 40 C.F.R. Part 60, § 60.58b(b)(1) through (7).

C. Test procedures and test methods for each O_2 CEMS shall comply with the test procedures specified in paragraphs (b)(1) through (b)(8) of 40 C.F.R. § 60.58b. [40 C.F.R. § 60.58b (b), as referenced by 40 C.F.R. § 60.36b, and 06-096 C.M.R. ch. 121]

D. At a minimum, valid CEMS hourly averages shall be obtained for 90% of the operating hours per calendar quarter and 95% of the operating days per calendar year that the affected facility is combusting MSW. All valid CEMS data shall be used in calculating average emission concentrations and percent reductions even if these minimum CEMS data requirements are not met. [40 C.F.R. § 60.58b (e) and (i), as referenced by 06-096 C.M.R. ch. 121]

E. The 24-hour daily arithmetic averages and 24-hour geometric means specified in this license shall be calculated from one-hour arithmetic averages expressed in parts per million by volume corrected to 7% oxygen (dry basis). The one-hour arithmetic averages shall be calculated using the data points generated by the CEMS. At least two data points representing two 15-minute quadrants

shall be used to calculate each one-hour arithmetic average. [40 C.F.R. § 60.58b (h), as referenced by 06-096 C.M.R. ch. 121]

F. CEMS Recordkeeping

1. PERC shall maintain records documenting that all CEMS and COMS are continuously accurate, reliable, and operated in accordance with 06-096 C.M.R. ch. 117 (as amended), 40 C.F.R. Part 51, Appendix P, and 40 C.F.R. Part 60, Appendices B and F;

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

3. PERC shall maintain records of other data indicative of compliance with the applicable emission standards for those periods when the CEMS or COMS 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 except for periods of COMS or CEMS downtime for conducting QC/QA or preventative maintenance as required by regulation pursuant to 38 M.R.S.A. §349. [06-096 C.M.R. ch. 117 and 06-096 C.M.R. ch. 140] Enforceable by State-only

(18) **Periodic Monitoring**

A. PERC shall periodically monitor and record the following values for MWC #1 and MWC #2 and their associated air pollution control equipment whenever the equipment is operating.

MWC #1 and MWC #2 (*each*)				
Value	**Units of Measure**	**Monitoring Tool/Method**	**Frequency**	
			Monitor	**Record**
Operating Time	Hours	Boiler control system (DCS)	Daily, monthly, and annually (calendar year basis)	
Inspection of baghouses*	--	Visual	Weekly	
Fossil fuel use	gal or mmscf	Fuel meter	Daily, Monthly, 12-month rolling total (to calculate and document annual capacity factor)	

* Inspections of baghouses shall include visual inspection of door seals, poppet flow control valves, and valve seals.

B. PERC shall conduct emissions testing for arsenic (As), nickel (Ni), chromium (Cr), and beryllium (Be) using EPA Method 29 of 40 C.F.R., Part 60, Appendix A, or in any other manner as approved by the Department. Testing shall be conducted according to a testing schedule as approved by the Department but in no case shall the interval between testing exceed three years. [06-096 C.M.R. ch. 121 (5)(D)(5)]

C. For MWC #1 and MWC #2, PERC may conduct emissions testing on each effluent or on the combined effluent exhausted through the common stack. If testing in the common stack measures an exceedance of the standard, then the test results shall represent an exceedance from each MWC, unless PERC can demonstrate to the satisfaction of the Department that the excess emissions did not occur from one of the units. [06-096 C.M.R. ch. 121]

D. When conducting emissions testing in the common stack for particulate matter, hydrogen chloride, lead, cadmium, or dioxins/furans, the two MSW units shall operate at the same unit load capacity during the test; and common stack testing is only permitted when the common stack test results measure 50% or less of the emission limit specified for each pollutant in 06-096 C.M.R. ch. 121 (5)(a), except for mercury. Common stack testing for mercury is authorized when the concentration limit for mercury is not exceeded. [06-096 C.M.R. ch. 121 (5)(D)(2)(a)]

(19) **Parameter Monitoring**

A. PERC shall monitor and record the following parameters for MWC #1 and MWC #2 and their associated air pollution control equipment whenever the equipment is operating.

MWC #1 and MWC #2 (*each*)				
Value	**Units of Measure**	**Monitoring Tool/Method**	**Frequency**	
			Monitor	**Record**
Steam flow and/or feedwater flow	Pounds per hour	Flow meter	Continuously	Hourly and 4-hour block
Fabric filter inlet temperature	°F	Thermocouple	Continuously	

All signal conversion elements associated with steam or feedwater measurements shall be calibrated according to the manufacturer's instructions before each dioxin/furan performance test, such that calibration is conducted at least once per year. [40 C.F.R. Part 60, Subpart Eb, § 60.58b (i)(6)(iv) as referenced by 06-096 C.M.R. ch. 121]

B. Parameter Monitor General Requirements [06-096 C.M.R. ch. 140 and 117]
Enforceable by State-only

1. Parameter monitors required by this license shall be installed, operated, maintained, and calibrated in accordance with manufacturer recommendations or as otherwise required by the Department.

2. Parameter monitors required by this license shall continuously monitor data at all times the associated emissions unit is in operation. "Continuously" with respect to the operation of parameter monitors required by this license means providing equally spaced data points with at least one valid data point in each successive 15-minute period. A minimum of three valid 15-minute periods constitute a valid hour.

3. Each parameter monitor must record accurate and reliable data. If the parameter monitor is recording accurate and reliable data less than 98% of the associated emissions unit operating time within any quarter of the calendar year, the Department may initiate enforcement action and may include in that enforcement action any period of time that the parameter monitor was not recording accurate and reliable data during that quarter unless the licensee can demonstrate to the satisfaction of the Department that the failure of the system to record accurate and reliable data was due to the performance of established quality assurance and quality control procedures or unavoidable malfunctions.

(20) **Operator Training and Certification** [40 C.F.R. Part 60, Subpart Cb and 06-096 C.M.R. ch. 121]

A. Each chief facility operator and shift supervisor, each as defined in 40 C.F.R. Part 60, Subpart Eb, shall obtain and maintain a current operator certification from either the American Society of Mechanical Engineers [QRO-1-1994] or an equivalent, State-approved certification program.

B. PERC shall not operate the facility at any time without either a fully certified chief facility operator or a fully certified shift supervisor on duty and on-site.

C. If both the certified chief facility operator and the certified shift supervisor are unavailable, a provisionally certified control room operator on-site at the MWC unit may fulfill the certified operator requirement. Depending on the length of time that a certified chief facility operator and certified shift supervisor are away, PERC must comply with differing requirements. For the durations specified in the table below when the certified chief facility operator and certified shift supervisor are both off-site **and** no other certified operator is on-site, PERC shall comply with the corresponding requirement(s), as specified. In each case, the provisionally certified control room operator may

perform the duties of the certified chief facility operator or certified shift supervisor.

Duration	Then…
12 hours or less	The provisionally certified control room operator may perform the duties of the certified chief facility operator or certified shift supervisor. No additional requirements are applicable.
more than 12 hours but not more than two weeks	The provisionally certified control room operator may fulfill the certified operator requirement with no required notice to or approval from the Department. **However**, PERC must record the period(s) when the certified chief facility operator and certified shift supervisor are off-site and include that information in the annual report.
more than two weeks	The provisionally certified control room operator may fulfill the certified operator requirement with no required approval from the Department. **However**, PERC must fulfill the following requirements: (1) Notify the Department in writing, stating what caused the absence and what actions are being taken by PERC to ensure that a certified chief facility operator or certified shift supervisor is on-site as expeditiously as practicable. (2) Submit a status report and corrective action summary to the Department every four weeks following the initial notification. If the Department provides notice that the status report or corrective action summary is disapproved, the MWC unit may continue operation for 90 days, but then must cease operation. If corrective actions are taken in the 90-day period such that the Department withdraws the disapproval, the MWC unit may continue operation.

D. A provisionally certified operator who is newly promoted or recently transferred to a shift supervisor position or a chief facility operator position at the facility may perform the duties of the certified chief facility operator or certified shift supervisor without notice to or approval by the Department for up to six months before taking the ASME QRO certification exam.

E. PERC shall develop and update yearly a site-specific operating manual that shall, at a minimum, address the following elements of MWC unit operation:
1. A summary of the applicable air emission license standards;
2. A description of basic combustion theory applicable to a MWC unit;
3. Procedures for receiving, handling, and feeding municipal solid waste;
4. MWC unit startup, shutdown, and malfunction procedures;
5. Procedures for maintaining proper combustion air supply levels;
6. Procedures for operating the MWC unit within air emission license standards;
7. Procedures for responding to periodic upset or off-specification conditions;
8. Procedures for minimizing particulate matter carryover;
9. Procedures for handling ash;
10. Procedures for monitoring MWC unit emissions; and
11. Reporting and recordkeeping procedures.

The operating manual shall be kept in a readily accessible location for all persons required to undergo training. The operating manual and records of training shall be available for inspection by the EPA or its delegated enforcement agency upon request.

F. PERC shall establish and maintain an ongoing training program to review the operating manual with each person who has responsibilities affecting the operation of the unit, including but not limited to chief facility operators, shift supervisors, control room operators, ash handlers, maintenance personnel, and crane/load handlers, by the date prior to the day the person assumes such responsibilities and then annually thereafter.

(21) **Recordkeeping** [40 C.F.R. Part 60, Subpart Eb, § 60.59b, as referenced by 40 C.F.R. Part 60, Subpart Cb and 06-096 C.M.R. ch. 121]

PERC shall maintain records of the following information for a period of at least six years. These records shall be readily available for submittal to the Department or review on site by an inspector.

A. The calendar date of each record.

Emissions and Parameters Data [40 C.F.R. § 60.59b (d)]

B. The emission concentrations and parameters using continuous monitoring systems specified in this license and as follows:
   1. All six-minute average opacity values from the COMS;
   2. All one-hour average SO_2, NO_x, and CO emission concentrations and associated O_2 data from the CEMS;
   3. All four-hour block arithmetic average MWC unit load levels;
   4. All four-hour block arithmetic average PM control device inlet temperatures.

C. The average concentrations and percent reductions specified below, as applicable, shall be computed, recorded, and available for submittal to the Department or for review on-site by a Department representative:
   1. All 24-hour daily geometric average SO_2 emission concentrations and all 24-hour daily geometric average percent reductions in SO_2 emissions;
   2. All 24-hour daily arithmetic average NO_x emission concentrations;
   3. All 4-hour block average CO emission concentrations;
   4. All 4-hour block arithmetic average MWC unit load levels and PM control device inlet temperatures.

D. Identification of the calendar dates and times (hours) for which valid hourly data as required have not been obtained, or required continuous automated sampling systems were not operated, including reasons for not obtaining the data and a description of corrective actions taken, for the following:
   1. SO_2 emissions data;
   2. NO_x emissions data;
   3. CO emissions data;
   4. MWC unit load data;
   5. PM control device inlet temperature data.

E. Identification of each occurrence that SO_2 emissions data, NO_x emissions data, or operational data (*i.e.*, CO emissions, unit load, and PM control device inlet temperature) have been excluded from the calculation of average emission concentrations or parameters, and the reasons for excluding the data.

F. The results of daily drift tests and quarterly accuracy determinations for SO_2, NO_x, CO, and associated O_2 CEMS.

G. Identification of the calendar dates when any emission concentrations, percent reductions, opacities, or operating parameters were above the applicable limits, with reasons for such exceedances and descriptions of corrective actions taken.

Training Records [40 C.F.R. § 60.59b (d)]

H. Records showing the names of the MWC chief facility operator, shift supervisors, and control room operators who have been fully or provisionally certified by the American Society of Mechanical Engineers or an equivalent State-approved certification program, including the dates of initial and renewal certifications and documentation of current certification.

I. Records showing the names of the MWC chief facility operator, shift supervisors, and control room operators who have completed the EPA municipal waste combustor operator training course or a State-approved equivalent course, including documentation of training completion.

J. Records of when a certified operator is temporarily off site, including the following:
   1. If the certified chief facility operator and certified shift supervisor are off-site for more than 12 hours, but for two weeks or less, and no other certified operator is on-site, record the dates that the certified chief facility operator and certified shift supervisor were off-site.
   2. When all certified chief facility operators and certified shift supervisors are off-site for more than two weeks and no other certified operator is on-site, keep records of four items:

a. Time of day that all certified persons are off-site.
b. The conditions that cause those people to be off-site.
c. The corrective actions taken by PERC to ensure a certified chief facility operator or certified shift supervisor is on-site as soon as practicable.
d. Copies of the written reports submitted every four weeks that summarize the actions taken by PERC to ensure that a certified chief facility operator or certified shift supervisor will be on-site as soon as practicable.

K. Records showing the names of persons who have completed a review of the operating manual, including the date of the initial review and subsequent annual reviews.

(22) **Ash Handling System**

A. All ash handling conveyors between the boiler building or pollution control equipment and load out building shall be enclosed. Ash from each MWC and all ash and non-combustible materials culled from the Ash Handling System shall be sufficiently conditioned with water to render it dust-free.

Trailers on-site containing ash shall not sit outside and uncovered for greater than 24 hours before being removed for transport to the landfill. If an ash-containing trailer is to be on-site and outside for longer than 24-hours, **or** if visible emissions from an outside ash-containing trailer are observed at any time, the trailer contents shall be covered with a tarp or other barrier as soon as practicably possible to prevent fugitive emissions.

All ash from the MWCs shall be transported to its final disposal location in covered containers so as to prevent fugitive emissions.

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

B. Trailers of front end process residue shall not remain outside of the building and on-site for greater than 24 hours before being removed for transport to the landfill. [06-096 C.M.R. ch. 140, BPT]

C. There shall be no visible emissions from the Ash Handling System for more than 5% of the observation period (i.e., nine minutes in any three-hour period). [40 C.F.R. Part 60, Subpart Cb, § 60.36b and 06-096 C.M.R. ch. 121(5)(A)(10)]

Fugitive ash visible emission limitations do not cover visible emissions discharged inside buildings or enclosures of ash conveying systems or visible emissions discharged to the atmosphere from buildings or enclosures of ash conveying systems; and do not apply during maintenance and repair of ash conveying systems. [40 C.F.R. § 60.55b, as referenced by 40 C.F.R. § 60.36b and 06-096 C.M.R. ch. 121]

D. Compliance with the visible emissions limit for the Ash Handling System shall be demonstrated annually, in accordance with EPA Reference Method 22 in 40 C.F.R. Part 60, Appendix A.

The minimum observation time shall be a series of three one-hour observations. The observation period shall include times when the facility is transferring ash from the MWCs to the area where ash is stored or loaded into containers or trucks. The average duration of visible emissions per hour shall be calculated from the three one-hour observations. The average shall be used to determine compliance with the fugitive ash visible emission limit. [06-096 C.M.R. ch. 121]

(23) **Process Air Handling System/Tipping Floor Ventilation**

Air from the tipping floor and fuel processing and storage areas shall be drawn through collection ducts and through mesh filters, and then into the boiler forced draft fans, for use as MWC combustion air.

During periods when one or both of the MWCs are not in operation, PERC shall operate the ventilation fans as necessary for odor abatement.

[A-355-72-A-N (February 26, 1986), BACT]

During periods when refuse is not being received, the truck entry doors shall remain in the closed position except when operating conditions require that they be open to permit rolling stock or trailers to move in or out of the building or to provide adequate ventilation for personnel. The truck entry doors may be opened up to six feet as measured from the tipping floor when the ventilation fans do not move sufficient air to protect the health and safety of the personnel in the building. Enforceable by State-only

[A-355-70-A-I (July 1, 2002) and A-355-70-B-M (October 8, 2003), BPT]

(24) **Lime Silo**

A. PERC shall maintain and operate a baghouse to control emissions during Lime Silo filling operations, and shall not conduct filling operations without the proper use of the baghouse. [06-096 C.M.R. ch. 140, BPT]

B. PERC shall maintain monthly records of the quantity of lime loaded to the silo and of maintenance conducted on the baghouse. [06-096 C.M.R. ch. 140, BPT] Enforceable by State-only

C. Visible emissions from the Lime Silo shall not exceed 10% opacity, on a six-minute block average basis. [A-355-70-A-I (July 1, 2002), BPT]

(25) **Smoke Ventilators** [A-355-71-J-M (July 19, 1999), BPT] Enforceable by State-only

PERC shall install smoke ventilators at the facility as necessary. Smoke ventilators shall be kept in the weather-tight closed position at all times except in the event of an emergency.

PERC shall submit written notification to the Department prior to the installation of any smoke ventilators. The notification shall include the proposed date of installation and the reason(s) why the ventilator is needed in the proposed area.

(26) **Emergency Generators and Engines**

A. Allowable Operation and Fuels [06-096 C.M.R. ch. 140, BPT]

1. The Emergency Generator, the Fire Pump, and the Emergency Feedwater Pump Engine are licensed to fire distillate fuel.

2. The Emergency Generator, the Fire Pump, and the Emergency Feedwater Pump Engine are each limited to 100 hours per year of operation for non-emergency purposes, based on a 12-month rolling total. **There is no time limit on the use of the Emergency Generator, the Fire Pump Engine, or the Emergency Feedwater Pump Engine in emergency situations.**

3. The distillate fuel sulfur content for the Emergency Generator, the Fire Pump, and the Emergency Feedwater Pump Engine shall be limited to 0.5% by weight prior to July 1, 2018; and not to exceed 0.0015% by weight as of July 1, 2018. [06-096 C.M.R. ch. 140, BPT and 38 M.R.S. § 603-A(2)(A)(3)] Enforceable by State-only

Fuel sulfur content compliance shall be demonstrated by fuel delivery receipts from the supplier documenting the type of fuel delivered and the sulfur content of the fuel. [06-096 C.M.R. ch. 140, BPT]

B. Emissions from the Emergency Generator, the Fire Pump, and the Emergency Feedwater Pump Engine shall not exceed the following limits [06-096 C.M.R. ch. 140, BPT]:

Unit	PM (lb/hr)	PM_{10} (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Emergency Generator 2.0 MMBtu/hr, distillate fuel	0.62	0.62	1.00	8.82	1.90	0.72
Fire Pump 1.3 MMBtu/hr, distillate fuel	0.40	0.40	0.65	5.73	1.24	0.47
Emergency Feedwater Pump Engine 1.2 MMBtu/hr, distillate fuel	0.37	0.37	0.60	5.29	1.08	0.43

C. Visible Emissions

Visible emissions from the Emergency Generator, the Fire Pump, and the Emergency Feedwater Pump Engine shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 140, BPT]

D. Emission Limit Compliance Methods [06-096 C.M.R. ch. 140, BPT]

Compliance with the emission limits associated with the Emergency Generator, the Fire Pump, and the Emergency Feedwater Pump Engine shall be demonstrated in accordance with the appropriate test methods upon request of the Department.

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

PERC shall monitor and record parameters for the Emergency Generator, the Fire Pump, and the Emergency Feedwater Pump Engine as indicated in the following table whenever the equipment is operating.

Parameter	Units of Measure	Monitoring Tool/Method	Frequency
Distillate fuel sulfur content	Percent, by weight	Fuel receipts from supplier	As fuel is purchased
Operating time	Hours	Hour Meter	Monthly and 12-month rolling total
Type of Operation (emergency, maintenance, etc.)	N/A	Records	As use occurs

A non-resettable hour meter shall be installed and operated on each unit. [A-355-72-F-A (May 31, 1995), NO_x RACT]

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

The Emergency Generator, the Fire Pump, and the Emergency Feedwater Pump Engine shall meet the applicable requirements of 40 C.F.R. Part 63, Subpart ZZZZ, including the following:

1. Operation and Maintenance Requirements [40 C.F.R. § 63.6603(a) and Table 2(d); and 06-096 C.M.R. ch. 140, BPT]
   a. Change Change the oil and filter every 500 hours of operation or annually, whichever comes first;
   b. Inspect the air cleaner every 1000 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.

   The units shall be operated and maintained according to the manufacturer's emission-related written instructions, or PERC shall develop a maintenance plan which provides to the extent practicable for the maintenance and operation of each 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
   PERC has the option of utilizing an oil analysis program which complies with the requirements of 40 C.F.R. § 63.6625(i) to extend the specified oil change requirement. If this option is used, PERC must keep records of the parameters that are analyzed as part of the program, the results of each analysis, and the oil changes for each engine. The analysis program must be part of the maintenance plan for each 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 each generator. [40 C.F.R. § 63.6625(f)]

4. Startup Idle and Startup Time Minimization Requirements
   During periods of startup, the facility must minimize each engine's time spent at idle and minimize each 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 Table 2d of 40 C.F.R. Part 63, Subpart ZZZZ]

5. Annual Time Limit For Maintenance and Testing
   The units shall each 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 (this does not include peak shaving, non-emergency demand response, or to generate income for a facility by providing power to an electric grid or otherwise supplying power as part of a financial arrangement with another entity. [40 C.F.R. § 63.6640(f)]

6. Recordkeeping
   PERC shall keep records that include maintenance conducted on the Emergency Generator, the Fire Pump, and the Emergency Feedwater Pump Engine and the hours of operation of each engine recorded through its non-resettable hour meter. Documentation shall include the number of hours of emergency operation, including what classified the operation as emergency, and the number of hours of non-emergency operation. [40 C.F.R. § 63.6655(e) and (f)]

(27) Quarterly Reporting

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

A. All control equipment downtimes and malfunctions;
B. All CEMS or COMS downtimes and malfunctions;
C. All parameter monitor downtimes and malfunctions;
D. All excess events of emission and operational limitations set by this Order, Statute, or state 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.
E. A report certifying there were no excess emissions, if that is the case.

(28) **Semiannual Reporting**

A. PERC shall submit a semiannual report that includes the following information for any recorded pollutant or parameter that does not comply with the applicable pollutant or parameter limit. [40 C.F.R. Part 60, Subpart Cb, § 60.59b and 06-096 C.M.R. ch. 140]

1. The semiannual report shall include monitored information for SO_2, NO_x, CO, MWC unit load level, PM control device inlet temperature, and opacity.

2. If the test reports document any particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, or fugitive ash emission levels that were above the applicable pollutant limits, the semiannual report shall include a copy of the test report documenting the emission levels and the corrective actions taken.

B. The licensee shall submit to the Bureau of Air Quality semiannual reports which are due on **January 31st** and **July 31st** of each year. The facility's designated responsible official must sign this report. [06-096 C.M.R. ch. 140]

C. The semiannual report shall be considered on-time if the postmark of the submittal is before the due date or if the report is received by the DEP within seven calendar days of the due date. [06-096 C.M.R. ch. 140]

D. Each semiannual report shall include a summary of the periodic monitoring required by this license. [06-096 C.M.R. ch. 140]

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

(29) **Annual Compliance Certification**

PERC 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 31 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 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]

(30) **Annual Emission Statement**

In accordance with *Emission Statements*, 06-096 C.M.R. ch. 137 (as amended), the licensee 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 by the date specified in 06-096 C.M.R. ch. 137.

(31) **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 Regulation	-
06-096 C.M.R. ch. 110	Ambient Air Quality Standard	-
06-096 C.M.R. ch. 116	Prohibited Dispersion Techniques	-
38 M.R.S.A. §585-B, §§5	Mercury Emission Limit	Enforceable by State-only

(32) **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]

(33) **Asbestos Abatement**

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

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

A. PERC shall submit a complete Part 70 renewal application at least six months 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

(35) **New Source Review**

PERC is subject to all previous New Source Review (NSR) requirements summarized in this Part 70 air emissions license and the NSR requirements remain in effect even if this 06-096 C.M.R. ch. 140 Air Emission License, A-355-70-E-R, expires.

DONE AND DATED IN AUGUSTA, MAINE THIS 1 DAY OF March , 2017.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Marc Allen Robert Cone for
PAUL MERCER, COMMISSIONER

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

[Note: If a renewal application, determined by the Department as complete, is submitted at least six months but no more than 18 months prior to expiration of this Part 70 license, then pursuant to Title 5 M.R.S.A. §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: December 15, 2006
Date of application acceptance: December 19, 2006

Date filed with the Board of Environmental Protection:

This Order prepared by Jane E. Gilbert, Bureau of Air Quality.

Filed
MAR 0 3 2017
State of Maine
Board of Environmental Protection