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

DEPARTMENT ORDER

Maine Woods Pellet Company, LLC,
Athens Capital Holdings, LLC &
Athens Energy LLC
Somerset County
Athens, Maine
A-989-70-A-I

Departmental
Findings of Fact and Order
Initial Part 70 Air Emission License

FINDINGS OF FACT

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

I. REGISTRATION

A. Introduction

FACILITY	Maine Woods Pellet Company, LLC, Athens Capital Holdings, LLC & Athens Energy LLC
LICENSE TYPE	Initial Part 70 License
NAICS CODES	321999
NATURE OF BUSINESS	Wood Pellet Manufacturer
FACILITY LOCATION	164 Harmony Rd, Athens, Maine

Maine Woods Pellet Company, LLC (MWP), along with co-applicants Athens Capital Holdings, LLC and Athens Energy LLC, is a wood pellet manufacturing facility consisting of wood dryers, pelletizers, and material handling equipment. The facility also includes a cogeneration plant which consists of a wood-fired furnace and a wood pre-dryer.

MWP has the potential to emit more than 100 tons per year (tpy) of particulate matter (PM), particulate matter under 10 micrometers (PM_{10}), particulate matter under 2.5 micrometers ($PM_{2.5}$), nitrogen oxides (NO_x), and carbon monoxide (CO); more than 50 tpy of volatile organic compounds (VOC); and more than 100,000 tpy of carbon dioxide equivalent (CO_2e). Therefore, the source is determined to be a major source for criteria pollutants.

MWP does not have the potential to emit 10 tpy or more of a single hazardous air pollutant (HAP) or 25 tpy or more of combined HAP. Therefore, the source is determined to be an area source for HAP.

B. Table of Contents

C. Emission Equipment

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

Furnace

Equipment	Maximum Capacity (MMBtu/hr)	Maximum Firing Rate (ton/hr)	Fuel Type, % sulfur	Date of Manuf.	Stack #
Furnace #1	149	16.6	biomass, negligible	2015	3

Wood Drying Equipment

Equipment	Maximum Heat Input Capacity (MMBtu/hr)	Maximum Production Rate (ODT/hr)	Fuel Type	Install. Date	Stack #
Pre-Dryer #1	N/A	6.5	N/A	2015	3
Dryer #1	45	14.4	wood propane	2008	1

Generators/Engines

Equipment	Max. Heat Input Capacity (MMBtu/hr)	Max. Firing Rate (gal/hr)	Output	Fuel Type, % sulfur	Mfr. Date	Install. Date
Fire Pump Engine	1.3	9.5	185 Hp	distillate fuel, 0.0015%	1975	2008
Screen Engine	1.2	8.8	129 kW	distillate fuel, 0.0015%	2003	2003
Thermal Oil Backup	0.8	5.6	101 Hp	distillate fuel, 0.0015%	2011	2016
Generator #1	1.8	12.8	187 kW	distillate fuel, 0.0015%	2010	2017

Process Equipment

Equipment	Pollution Control Equipment	Stack #
Green Hammermill	None	N/A
Dryer Cyclone	Wet Scrubber	1
Dry Hammermill and Milled Material Cyclone	Baghouse	2
Pelletizers and Bagging Area	Dust Recovery Cyclone & Baghouse	2

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

D. Acronym List

ASTM	American Society for Testing and Materials
BACT	Best Available Control Technology
BPT	Best Practical Treatment
C.F.R.	Code of Federal Regulations
C.M.R.	Code of Maine Rules
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emissions Monitoring System
CO	Carbon Monoxide
CO_2e	Carbon Dioxide equivalent
COMS	Continuous Opacity Monitoring System
EPA or US EPA	United States Environmental Protection Agency
ESP	Electrostatic Precipitator
FGR	Flue Gas Recirculation
gal/hr	gallon per hour
GHG	Greenhouse Gases
HAP	Hazardous Air Pollutants
Hp	horsepower
kW	kilowatt
lb	pound
lb/hr	pound per hour
lb/MMBtu	pound per million British thermal units

M.R.S.	Maine Revised Statutes
MMBtu	Millions of British Thermal Units
MMBtu/hr	Million British thermal units per hour
MW	megawatt
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standards
NSR	New Source Review
ORC	Organic Rankine Cycle
PM	Particulate Matter less than 100 microns in diameter
PM_{10}	Particulate Matter less than 10 microns in diameter
$PM_{2.5}$	Particulate Matter less than 2.5 microns in diameter
PSD	Prevention of Significant Deterioration
RACT	Reasonably Available Control Technology
SO_2	Sulfur Dioxide
ton/hr	ton per hour
ton/day	ton per day
tpy	ton per year
VOC	Volatile Organic Compounds

E. Definitions

Continuously. With respect to the operation of parameter monitors required by this license, *continuously* 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 constitutes a valid hour.

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.

PM. For the purposes of this license, *PM* means particulate with an aerodynamic diameter less than or equal to a nominal 100 micrometers NOT including gaseous emissions from a source or activity which condense to form particulate matter at ambient temperatures.

$PM_{2.5}$. For the purposes of this license, *$PM_{2.5}$* means particulate with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers including gaseous emissions from a source or activity which condense to form particulate matter at ambient temperatures.

PM_{10}. For the purposes of this license, *PM_{10}* means particulate with an aerodynamic diameter less than or equal to a nominal 10 micrometers including gaseous emissions from a source or activity which condense to form particulate matter at ambient temperatures.

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

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

G. Facility Description

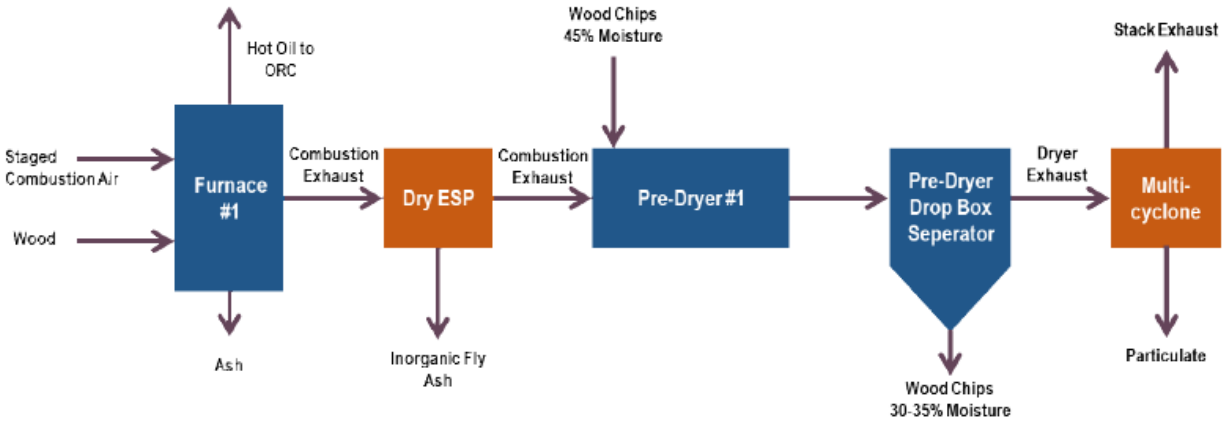
MWP operates a cogeneration plant in conjunction with a wood pellet manufacturing facility. The cogeneration plant consists of a 149 MMBtu/hr thermal oil furnace (Furnace #1) which fires biomass (primarily wood and wood waste such as bark). The furnace heats thermal oil that provides the energy to run an eight (8) megawatt Organic Rankine Cycle (ORC) electrical generation turbine. The ORC process is a closed loop cycle in which the organic working medium (cyclopentane) is vaporized in a heat exchanger which uses hot oil from the furnace. The cyclopentane vapor is expanded in a turbine, driving a generator to produce electricity. The cyclopentane is then passed through the regenerator that is used to pre-heat the organic liquid prior to vaporization.

The electricity produced is sold to the local utility.

The combustion gases from Furnace #1 pass through an electrostatic precipitator (ESP) to remove particulate matter prior to the combustion gases being used to partially dry wood in a direct-contact rotary drum dryer (Pre-Dryer #1). The ESP serves as a pollution control device and an integral quality control instrument to minimize potential fouling (i.e., increasing the ash content) of the wood used for pellet production.

After Pre-Dryer #1, the exhaust stream passes through a drop box to separate the larger material from the gas stream and then through a multi-cyclone to collect additional particulate matter prior to exhausting to the atmosphere through a 125-foot stack (Stack #3).

Below is a simplified block diagram of cogeneration plant.



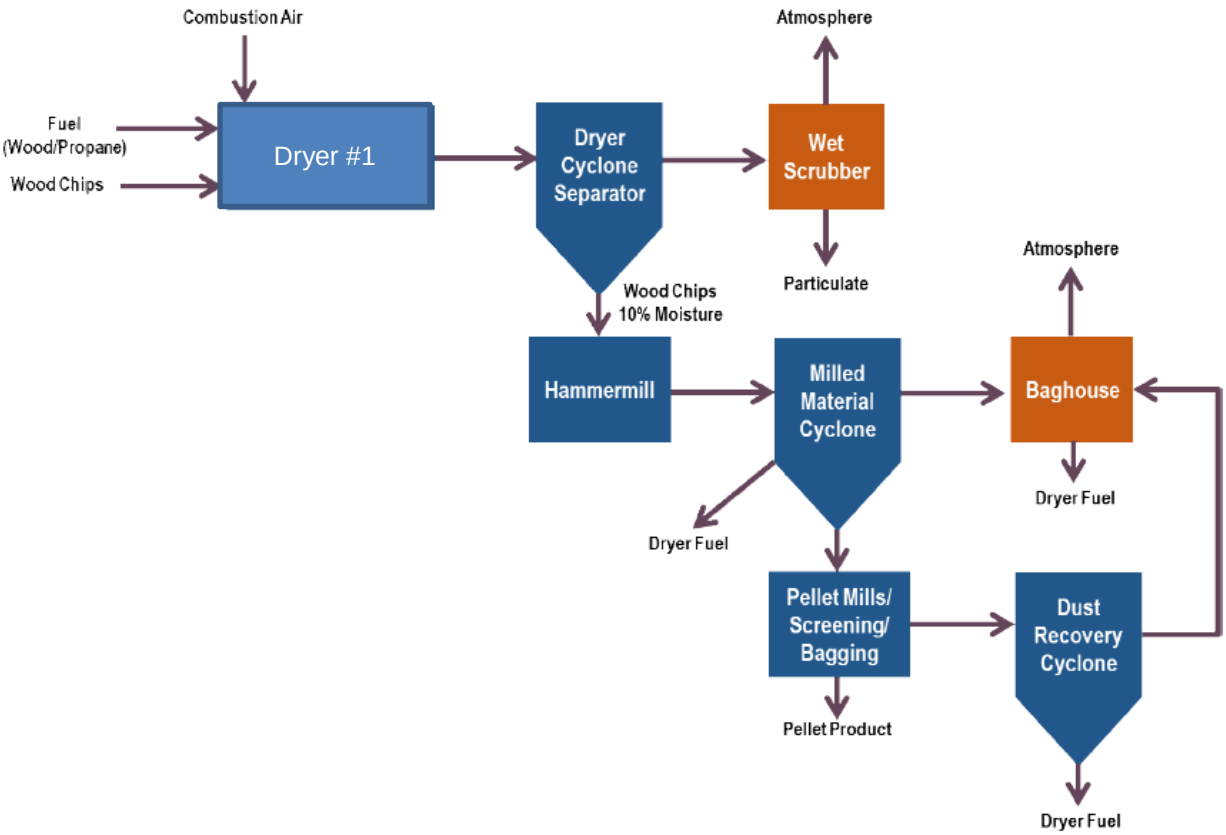
The wood pellet process begins with hardwood and softwood chips being fed from hoppers through the chip hammermill to reduce them to a size more appropriate for drying. Pre-Dryer #1 is fed separately, before the chip hammermill. Its output is passed through a rechipper and then fed onto the green belt and into the chip hammermill. The milled chips are fed into Dryer #1. Between the two drying processes, the chips go from approximately 50% moisture down to approximately 10% moisture.

Dryer #1 is fueled with dried wood using a small amount of propane as a flame stabilizer. From Dryer #1 the material moves to the Dryer Cyclone where the material is separated from the air flow. The exhaust passes through a Ducon wet scrubber before being vented to the atmosphere.

The acceptable material proceeds through a second hammermill to the Milled Material Cyclone. The exhaust from the Milled Material Cyclone is sent through a baghouse before being vented to the atmosphere.

After the Milled Material Cyclone, a portion of the dry wood product is taken to be used as fuel in the dryer. The remainder is sent to four pellet mills where they are processed into wood pellets. Finished pellets are cooled and screened to remove dust. This dust is moved to a storage bin where it is used as fuel in the dryer. The finished product then proceeds to be bagged or loaded for bulk distribution. The pellet mill and the bagging and distribution areas are controlled for dust using the Dust Collection Cyclone. The material collected from this cyclone is sent to the dryer as fuel. The exhaust is sent through the same baghouse as the Milled Materials Cyclone exhaust.

Below is a simplified block diagram of the Dryer #1 and pelletizing process.



H. General Facility Requirements

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

CITATION	REQUIREMENT TITLE
06-096 C.M.R. ch. 101	Visible Emissions Regulation
06-096 C.M.R. ch. 102	Open Burning
06-096 C.M.R. ch. 103	Fuel Burning Equipment Particulate Emission Standard
06-096 C.M.R. ch. 105	General Process Source Particulate Emission Standard
06-096 C.M.R. ch. 106	Low Sulfur Fuel Regulation
06-096 C.M.R. ch. 109	Emergency Episode Regulations
06-096 C.M.R. ch. 110	Ambient Air Quality Standards
06-096 C.M.R. ch. 116	Prohibited Dispersion Techniques
06-096 C.M.R. ch. 117	Source Surveillance – Emissions Monitoring
06-096 C.M.R. ch. 130	Solvent Cleaners
06-096 C.M.R. ch. 137	Emission Statements
06-096 C.M.R. ch. 140	Part 70 Air Emission License Regulations
06-096 C.M.R. ch. 143	New Source Performance Standards
06-096 C.M.R. ch. 144	National Emission Standards for Hazardous Air Pollutants
40 C.F.R. Part 60, Subpart Db	Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units
40 C.F.R. Part 60, Subpart IIII	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
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 64	Compliance Assurance Monitoring
40 C.F.R. Part 70	State Operating Permit Programs
40 C.F.R. Part 75	Continuous Emissions Monitoring

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

II. BEST PRACTICAL TREATMENT (BPT) AND EMISSION STANDARDS

A. Introduction

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

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

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

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 (NO_x RACT) is applicable to sources that had the potential to emit quantities of NO_x equal to or greater than 100 tons/year prior to 1995. MWP did not become a major source of NO_x until 2015. Therefore, 06-096 C.M.R. ch. 138 does not apply to MWP.

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 (VOC RACT) is applicable to sources that have the potential to emit quantities of VOC equal to or greater than 40 tons/year from non-exempt equipment. This regulation exempts VOC-emitting equipment or processes that address Best Available Control Technology (BACT) through limitations imposed in an air emission license issued pursuant to a federally approved permitting program. Equipment which emits VOC as a product of incomplete combustion are also exempt. MWP does not operate any VOC-emitting equipment which is not exempt under one of these provisions. Therefore, 06-096 C.M.R. ch. 134 does not apply to MWP.

D. Mandatory Greenhouse Gas (GHG) Reporting

Federal regulation *Mandatory Greenhouse Gas Reporting*, 40 C.F.R. Part 98, which contains GHG reporting and related monitoring and recordkeeping requirements, is

applicable to the owners/operators of any facility which falls into any one of the following three categories, per *General Provisions, Who must report?*, 40 C.F.R. § 98.2.

(a)(1) A facility that contains any source category that is listed in Table A–3 of this subpart in any calendar year starting in 2010.

(a)(2) A facility that contains any source category that is listed in Table A–4 of this subpart and that emits 25,000 metric tons CO_2e or more per year in combined emissions from stationary fuel combustion units, miscellaneous uses of carbonate, and all applicable source categories that are listed in Table A–3 and Table A–4 of this subpart.

(a)(3) A facility that in any calendar year starting in 2010 meets all three of the conditions listed in this paragraph (a)(3). For these facilities, the annual GHG report must cover emissions from stationary fuel combustion sources only.

(i) The facility does not meet the requirements of either paragraph (a)(1) or (a)(2) of this section.

(ii) The aggregate maximum rated heat input capacity of the stationary fuel combustion units at the facility is 30 MMBtu/hour or greater.

(iii) The facility emits 25,000 metric tons CO_2e or more per year in combined emissions from all stationary fuel combustion sources.

MWP does not belong to any of the categories listed in Table A-3 or A-4, and this facility does have stationary fuel combustion units which have an aggregate heat input rating greater than 30 MMBtu/hr.

When calculating CO_2e emissions from biomass combustion, emissions of methane (CH_4) and nitrous oxide (N_2O) are included, but emissions of carbon dioxide (CO_2) are not. With the exclusion of CO_2 emissions, MWP does not have the potential to emit greater than 25,000 metric tons of CO_2e and is therefore not subject to the reporting requirements of 40 C.F.R. Part 98.

E. PSD Review

The Department issued Air Emission License A-989-71-E-A on 5/13/15 to MWP. The license was issued to permit construction of a cogeneration plant with additional drying equipment associated with the existing pellet processing facility. The license was issued pursuant to federal Prevention of Significant Deterioration (PSD) requirements and the Department's air licensing requirements for major new sources. MWP has made additional modifications to equipment and processes and undergone the appropriate air licensing procedures to address these changes.

F. Compliance Assurance Monitoring (CAM)

Compliance Assurance Monitoring, 40 C.F.R. Part 64 is applicable to units at major sources if the unit has emission limits, a control device to meet the limits, and pre-control emissions greater than 100 tons/year for any pollutant.

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

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

40 CFR Part 64 Applicability Table

Unit	Eligible Pollutant	CAM Required	Reason	Regulatory Authority
Furnace #1	PM/PM_{10}	No	Subject to NSPS 40 C.F.R. Part 60, Subpart Db proposed after Nov. 15, 1990	40 C.F.R. § 64.2(b)(1)(i)
	NO_x	Yes	FGR is used to meet an emission limit of 23.8 lb/hr. Pre-control emissions exceed 100 tpy.	40 C.F.R. § 64.2(a)
Pre-Dryer #1	PM/PM_{10}	Yes	Multi-cyclone is used to meet an emission limit of 16.8 lb/hr. Pre-control emissions exceed 100 tpy.	40 C.F.R. § 64.2(a)
Dryer #1	PM/PM_{10}	Yes	Wet scrubber is used to meet an emission limit of 8.5 lb/hr. Pre-control emissions exceed 100 tpy.	40 C.F.R. § 64.2(a)
Cyclone Baghouse	PM/PM_{10}	Yes	Baghouse is used to meet an emission limit of 0.5 lb/hr. Pre-control emissions exceed 100 tpy.	40 C.F.R. § 64.2(a)

MWP submitted a CAM plan for NO_x from Furnace #1 and PM from Pre-Dryer #1, Dryer #1, and the Milled Material & Dust Recovery Baghouse. The following table summarizes the CAM proposal.

Unit	Eligible Pollutant	Indicator	Monitoring Frequency
Furnace #1	NO_x	FGR Damper (open/closed)	Once Daily
		Exhaust O_2 Concentration	Continuously
Pre-Dryer #1	PM/PM_{10}	Pressure Differential Across Multiclone	Continuously
		Stack Testing	Upon Request
Dryer #1	PM/PM_{10}	Water Recirculation (on/off)	Once Daily
		Stack Testing	Every third calendar year
Cyclone Baghouse	PM/PM_{10}	Draft Suction (present/not present)	Once Daily
		Sweep Arm Speed Monitor (operating/not operating)	Once Daily
		Bag Condition	Monthly

The CAM requirements are incorporated in this license and take effect upon its issuance.

G. Furnace #1 and Pre-Dryer #1

MWP operates Furnace #1 which heats thermal oil used to drive a turbine and produce electricity. It has a maximum heat input capacity of 149 MMBtu/hr firing biomass which includes wood and wood waste such as bark. The moisture content of the biomass fired in Furnace #1 is assumed to have an average moisture content of 45% by weight.

Included in MWP's fuel mix is biomass from other wood product manufacturers such as compressed briquettes of wood flour and filter cake from a process that grinds wood products using water. These fuels meet the definition of "clean cellulosic biomass" in 40 C.F.R. § 241.2 and are therefore not considered secondary materials or solid wastes since they do not contain contaminants not normally associated with virgin wood and they have not been discarded.

In conjunction with Furnace #1, MWP operates Pre-Dryer #1 which is a single-pass, direct-contact wood dryer with a maximum hourly throughput rate of approximately 6.5 oven-dried ton (ODT) per hour. The heat source for the pre-dryer is the exhaust gases from Furnace #1.

Emissions from Furnace #1 and Pre-Dryer #1 are limited through an annual operating limit on Furnace #1 of 8,200 hr/year. Emissions from both Furnace #1 and Pre-Dryer #1 exhaust through a single 125-foot stack (Stack #3).

MWP may operate Furnace #1 and the associated electrical generating equipment without processing chips in Pre-Dryer #1 as long as emissions continue to be exhausted through all permitted control equipment and Stack #3.

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

   Furnace #1 is not subject to *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources*, 40 C.F.R. Part 63, Subpart JJJJJJ which is applicable to all new, reconstructed, and existing boilers firing coal, biomass, or oil located at an area source of hazardous air pollutants (HAPs). MWP is an area source for HAPs, with the facility's potential to emit less than 10 tons per year of a single HAP and 25 tons per year combined HAPs.

   The definition of boiler in 40 C.F.R. Part 63, Subpart JJJJJJ states:

   Boiler means an enclosed device using controlled flame combustion in which water is heated to recover thermal energy in the form of steam or hot water. Controlled flame combustion refers to a steady-state, or near steady-state, process wherein fuel and/or oxidizer feed rates are controlled. Waste heat boilers are excluded from this definition.

   Furnace #1 does not heat water to recover thermal energy; therefore, 40 C.F.R. Part 63, Subpart JJJJJJ is not applicable to this unit since it is not considered a boiler.

2. New Source Performance Standards (NSPS)

   New Source Performance Standards titled *Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units,* 40 C.F.R. Part 60, Subpart Db applies to steam generating units that commence construction, modification, or reconstruction after June 19, 1984, and have a heat input capacity greater than 100 MMBtu/hr.

   The definition of steam generating unit in 40 C.F.R. Part 60, Subpart Db states:

   Steam generating unit means a device that combusts any fuel or byproduct/waste and produces steam or heats water or heats any heat transfer medium. This term includes any municipal-type solid waste incinerator with a heat recovery steam generating unit or any steam generating unit that combusts fuel and is part of a cogeneration system

or a combined cycle system. This term does not include process heaters as they are defined in this subpart.

A process heater is defined as:

Process heater means a device that is primarily used to heat a material to initiate or promote a chemical reaction in which the material participates as a reactant or catalyst.

The exhaust from Furnace #1 is used to remove moisture from wood chips. This is considered a physical separation process and not a chemical reaction. Therefore, Furnace #1 does not meet the definition of a process heater. However, Furnace #1 transfers heat to a thermal oil which is considered a heat transfer medium. As such, Furnace #1 meets the definition of a steam generating unit and is subject to the requirements of 40 C.F.R. Part 60, Subpart Db.

Subpart Db contains applicable emission standards for particulate matter and opacity. These standards apply only to Furnace #1 and not to the combined emissions of Furnace #1 and Pre-Dryer #1 unless the standards have been streamlined to the more stringent requirement.

MWP has elected to monitor emissions of particulate matter through the use of an ESP predictive model. As such, MWP is not required to install a continuous opacity monitoring system (COMS) per § 60.48b(j)(6).

The requirements of 40 C.F.R. Part 60, Subpart Db have been incorporated into this Part 70 license.

3. Control Equipment

   a. <u>PM Control Methods</u>
   MWP controls emissions of particulate matter (PM) from Furnace #1 by use of an electrostatic precipitator (ESP). Except for periods of startup and shutdown, MWP shall operate, at a minimum, the number of ESP chambers and number of fields per chamber that operated during the most recent demonstration of compliance with the licensed particulate matter emission limits.

   Emissions of PM from Furnace #1 and Pre-Dryer #1 are controlled by use of a cyclone and multi-cyclone. The Pre-Dryer cyclone and multi-cyclone shall be used to control emissions from Furnace #1 and Pre-Dryer #1 during all operating times.

b. NO_x Control Methods

MWP controls emissions of NO_x from Furnace #1 through the use of Flue Gas Recirculation (FGR). This system reduces NO_x by recirculating oxygen-depleted exhaust gases back into the combustion zone through both the under-fire and over-fire ducts.

4. Startup and Shutdown Provisions

MWP is required to operate Furnace #1 such that the visible emissions do not exceed 20% opacity on a six-minute block average basis, except for one six-minute block average per hour of not more than 27% opacity except for periods of startup, shutdown, or malfunction per 40 C.F.R. §§ 60.43b(f) and (g). *Visible Emission Regulation*, 06-096 C.M.R. ch. 101, Section 3 allows equipment with a heat input greater than 100 MMBtu/hr to establish alternative emission limits during periods of startup.

Furnace #1 utilizes an ESP for control of particulate matter emissions. When bringing Furnace #1 online or offline, MWP utilizes standard operating procedures that were created in accordance with manufacturer's recommendations to maintain the safety of the furnace operators and the furnace itself. MWP also operates the ESP in accordance with good engineering practices to maintain the safety of the operators and the ESP. In order to minimize the risk of fire or explosion, the ESP is not engaged unless the oxygen content of the exhaust gas is below 11%.

MWP utilizes an ESP predictive model to demonstrate compliance with the visible emissions limit in lieu of a continuous opacity monitoring system (COMS). Information from the ESP predictive model system is unavailable to demonstrate compliance with the visible emissions limits until/unless the ESP is engaged. Therefore, MWP has proposed demonstrating compliance during periods of startup and shutdown by complying with good air pollution control practices.

a. Definitions of Startup and Shutdown

For the purposes of this license, startup is defined as a period of time commencing when the ventilation fan is turned on and ending when the ESP is engaged. The total duration of each startup period shall not exceed four (4) hours.

For the purposes of this license, shutdown is defined as a period of time commencing when the biomass walking floor is turned off and ending when the forced draft ventilation fan is turned off. The total duration of each shutdown period shall not exceed seven (7) hours.

b. Good Air Pollution Control Practices

In air emission license A-989-77-3-A (12/21/17), BACT for visible emissions from Furnace #1 and Pre-Dryer #1 during periods of startup and shutdown was found to be operation in accordance with good air pollution control practices.

The following shall constitute good air pollution control practices:

(1) Adherence to the manufacturer's suggested standard operating procedures for startup and shutdown;
(2) Before startup, inspection of the ESP and ESP dust collection system equipment to ensure that the equipment is free of foreign matter and to ensure their proper function;
(3) During startup, engagement of the ESP as soon as it is deemed safe to do so in accordance with manufacturer's recommendations; and
(4) During shutdown, operation of the ESP for as long as it is deemed safe to do so in accordance with manufacturer's recommendations.

c. Monitoring During Startup/Shutdown

MWP shall maintain records of startups and shutdowns that shall include dates, times, and duration, records of the pre-startup inspections of the ESP and ESP dust collection system, and time the ESP was engaged (during startup) or disengaged (shutdown).

During all startups/shutdowns, MWP shall continuously monitor the following items. MWP shall record the monitored value at least once per hour. The records of hourly readings shall be included in the startup/shutdown record.

(1) Thermal oil temperature;
(2) ESP exit gas oxygen content; and
(3) Secondary voltage on each field of the ESP.

5. Emission Limits and Streamlining

For Furnace #1, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested, and the applicable emission limits can be found below.

Note: The standards and limits listed below apply to Furnace #1 alone and not the stack emissions from Furnace #1 and Pre-Dryer #1 combined.

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
PM	0.030 lb/MMBtu	40 C.F.R. Part 60, Subpart Db, § 60.43b(h)(1)	0.030 lb/MMBtu *
	0.30 lb/MMBtu	06-096 C.M.R. ch. 103, § 2(A)(3)(a)	
Visible Emissions	30% opacity on a 6-minute block average basis, except for no more than two 6-minute block averages in a 3-hr period	06-096 C.M.R. ch. 101, § 2(B)(1)(e)	20% opacity on a 6-minute block average basis, except for one 6-minute period per hour of not more than 27% opacity *
	20% opacity on a 6-minute block average basis, except for one 6-minute period per hour of not more than 27% opacity	40 C.F.R. Part 60, Subpart Db, § 60.42b(f)	

* streamlining requested

For Furnace #1 and Pre-Dryer #1 combined, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested, and the applicable emission limits can be found below.

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
PM	16.8 lb/hr	06-096 C.M.R. ch. 115, BACT (A-989-71-E-A)	16.8 lb/hr *
	17.6 lb/hr	06-096 C.M.R. ch. 105, § 3 (assumes the drying of 13 ton/hr of 50% moisture wood)	
PM_{10}	16.8 lb/hr	06-096 C.M.R. ch. 115, BACT (A-989-71-E-A)	16.8 lb/hr
$PM_{2.5}$	16.8 lb/hr	06-096 C.M.R. ch. 115, BACT (A-989-71-E-A)	16.8 lb/hr
SO_2	3.7 lb/hr	06-096 C.M.R. ch. 115, BACT (A-989-71-E-A)	3.7 lb/hr
NO_x	23.8 lb/hr	06-096 C.M.R. ch. 115, BACT (A-989-71-E-A)	23.8 lb/hr
CO	59.4 lb/hr	06-096 C.M.R. ch. 115, BACT (A-989-71-E-A)	59.4 lb/hr
VOC	12.0 lb/hr	06-096 C.M.R. ch. 115, BACT (A-989-71-E-A)	12.0 lb/hr
Visible Emissions	30% opacity on a 6-minute block average basis, except for no more than three 6-minute block averages in a 3-hr period	06-096 C.M.R. ch. 101, § 2(B)(5)(a)	20% opacity on a 6-minute block average basis, except for one 6-minute period per hour of not more than 27% opacity *
	20% opacity on a 6-minute block average basis, except for one 6-minute period per hour of not more than 27% opacity	06-096 C.M.R. ch. 115, BACT (A-989-71-E-A)	

* streamlining requested

6. Emission Limit Compliance Methods

   a. Upon request by the Department, MWP shall perform testing to demonstrate compliance with the emission limits for PM, PM_{10}, $PM_{2.5}$, SO_2, NO_x, CO, and VOC for Furnace #1 and Pre-Dryer #1 using test methods approved by the Department. [06-096 C.M.R. ch. 140]

   b. MWP shall demonstrate compliance with the PM and opacity limits established in 40 C.F.R. Part 60, Subpart Db for Furnace #1 through the use of an ESP predictive model operated in accordance with 40 C.F.R. § 60.48a. [40 C.F.R. § 60.48b(j)(6)]

   c. MWP shall perform performance tests for opacity from Furnace #1 using 40 C.F.R. Part 60, Appendix A, Method 9 per the schedule contained in 40 C.F.R. §§ 60.48b(a)(1), (2), or (3). [40 C.F.R. § 60.48b(a)]

7. Compliance Assurance Monitoring (CAM)

   CAM is applicable to NO_x emissions from Furnace #1 and particulate matter emissions from Pre-Dryer #1. The CAM monitoring requirements are included in the monitoring sections below.

8. Periodic Monitoring

   MWP shall operate, record data, and maintain records from the following periodic monitors for Furnace #1 and Pre-Dryer #1:

   a. Hours of operation for Furnace #1 on a monthly and 12-month rolling total basis. [06-096 C.M.R ch. 115, BACT (A-989-71-E-A)]
   b. Hours of operation for Furnace #1 and Pre-Dryer #1 on a monthly and calendar year total basis. [06-096 C.M.R. ch. 137]
   c. Amount of wood (tons) fired in Furnace #1 on a monthly basis. It is assumed that the green wood fired in Furnace #1 has an average moisture content of 45%. [40 CFR § 60.49b(d)(2)]
   d. Secondary voltage on the ESP monitored continuously and recorded at least once per 8-hour shift whenever Furnace #1 is in operation. [06-096 C.M.R ch. 115, BACT (A-989-71-E-A)]
   e. Records of maintenance activities performed on Furnace #1, Pre-Dryer #1, the ESP, and all facility cyclones/multiclones. [06-096 C.M.R. ch. 115, BACT (A-989-71-E-A)]

f. Records documenting startups, shutdowns, and malfunctions for Furnace #1 and its associated control equipment including:
(1) Dates, times, and duration of each startup, shutdown, and malfunction;
(2) Records of pre-startup inspections of the ESP;
(3) Time the ESP was engaged during startup;
(4) Time the ESP was disengaged during shutdown;
[06-096 C.M.R. ch. 115, BACT (A-989-77-3-A)]

g. During all startups/shutdowns, MWP shall continuously monitor the following items. MWP shall record the monitored value at least once per hour. The records of hourly readings shall be included in the startup/shutdown record.
(1) Thermal oil temperature;
(2) ESP exit gas oxygen content; and
(3) Secondary voltage on each field of the ESP.
[06-096 C.M.R. ch. 115, BACT (A-989-77-3-A)]

9. Parameter Monitors

During all operating times, MWP shall operate, record data, and maintain records from the following parameter monitors for Furnace #1 and Pre-Dryer #1:

a. The following parameters associated with the ESP predictive model:

Parameter	Monitoring Frequency
Number of ESP fields in operation	Continuously
ESP Secondary Voltage	Continuously
Flue gas exhaust temperature entering the ESP	Continuously

[40 C.F.R. § 60.48a(o)(3)]

b. The following monitors in accordance with MWP's approved CAM plan:

Parameter	Monitoring Frequency
FGR Damper (open/closed)	Once Daily
Exhaust O_2 Concentration	Continuously
Pressure Differential Across Multiclone	Continuously
Pre-Dryer #1 Stack Testing for PM	Upon Request

[40 C.F.R. Part 64]

10. CEMS and COMS

There are no CEMS or COMS required for Furnace #1 and Pre-Dryer #1 or its associated control equipment.

11. Reporting

MWP shall submit to the Department and EPA semiannual excess emission reports for Furnace #1 per the requirements of 40 C.F.R. § 60.49b(h).

H. Dryer #1

Dryer #1 is used to dry wood to a moisture content of approximately 9-11% by weight prior to pellitization. The wood processed in Dryer #1 may or may not have already been processed through Pre-Dryer #1.

The burner for Dryer #1 has a rated maximum heat input capacity of 45 MMBtu/hr. The dryer burner fires primarily (95%) wood with a moisture content of approximately 10% by weight. Dryer #1 also fires a small amount of propane (5%) as a flame stabilizer.

1. New Source Performance Standards (NSPS)

Dryer #1 is not subject to *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*, 40 C.F.R. Part 60, Subpart Dc.

Subpart Dc applies to steam generating units with a heat input capacity between 10 – 100 MMBtu/hr which are constructed after June 9, 1989. The term “steam generating unit,” as defined in Subpart Dc, does not include process heaters. EPA has concluded that direct contact heat operations are not subject to the requirements of Subpart Dc.

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

   Dryer #1 is not subject to *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources*, 40 C.F.R. Part 63, Subpart JJJJJJ which is applicable to all new, reconstructed, and existing boilers firing coal, biomass, or oil located at an area source of hazardous air pollutants (HAPs). MWP is an area source for HAPs, with the facility's potential to emit less than 10 tons per year of a single HAP and 25 tons per year combined HAPs.

   The definition of boiler in 40 C.F.R. Part 63, Subpart JJJJJJ states:

   Boiler means an enclosed device using controlled flame combustion in which water is heated to recover thermal energy in the form of steam or hot water. Controlled flame combustion refers to a steady-state, or near steady-state, process wherein fuel and/or oxidizer feed rates are controlled. Waste heat boilers are excluded from this definition.

   Dryer #1 does not heat water to recover thermal energy; therefore, 40 C.F.R. Part 63, Subpart JJJJJJ is not applicable to this unit since it is not considered a boiler.

3. Control Equipment

   The exhaust from Dryer #1 flows through the Dryer Cyclone where the material is separated from the air flow. The exhaust passes through a Wet Scrubber before being vented to the atmosphere. The Wet Scrubber has an assumed control efficiency of 95% for particulate matter.

   The wet scrubber shall be used to control emissions from Dryer #1 during all operating times. Monthly inspections shall be conducted of the Dryer Cyclone and Wet Scrubber and records kept of all maintenance performed.

4. Emission Limits and Streamlining

For Dryer #1, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested, and the applicable emission limits can be found below.

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
PM	8.5 lb/hr	06-096 C.M.R. ch. 115, BACT (A-989-71-B-A)	8.5 lb/hr *
	18.8 lb/hr	06-096 C.M.R. ch. 105, § 3 (assumes the drying of 28.8 ton/hr of 50% moisture wood)	
PM_{10}	12.8 lb/hr	06-096 C.M.R. ch. 115, BACT (A-989-71-E-A)	12.8 lb/hr
SO_2	5.1 lb/hr	06-096 C.M.R. ch. 115, BACT (A-989-71-B-A)	5.1 lb/hr
NO_x	5.0 lb/hr	06-096 C.M.R. ch. 115, BACT (A-989-71-B-A)	5.0 lb/hr
CO	15.1 lb/hr	06-096 C.M.R. ch. 115, BACT (A-989-71-B-A)	15.1 lb/hr
VOC	12.5 lb/hr	06-096 C.M.R. ch. 115, BACT (A-989-71-B-A)	12.5 lb/hr

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
Visible Emissions	30% opacity on a 6-minute block average basis, except for no more than two 6-minute block averages in a 3-hr period	06-096 C.M.R. ch. 101, § 2(B)(1)(f)	20% opacity on a 6-minute block average basis, except for no more than two 6-minute block averages in a 3-hr period, during which time opacity shall not exceed 60% *
	20% opacity on a 6-minute block average basis, except for no more than two 6-minute block averages in a 3-hr period	06-096 C.M.R. ch. 115, BACT (A-989-71-B-A)	
	20% opacity on a 6-minute block average basis, except for no more than two 6-minute block averages in a 3-hr period, during which time opacity shall not exceed 60%	06-096 C.M.R. Ch. 140, BPT	

* streamlining requested

5. Emission Limit Compliance Methods

   a. Upon request by the Department, MWP shall perform testing to demonstrate compliance with the emission limits for PM, SO_2, NO_x, CO, VOC, and opacity for Dryer #1 using test methods approved by the Department. [06-096 C.M.R. ch. 140, BPT]

   b. MWP shall test the wet scrubber exhaust stack to demonstrate compliance with the PM_{10} limit for Dryer #1 once every three calendar years (next test to be completed by 12/31/2021). Testing shall be performed in accordance with 40 C.F.R. Part 60, Appendix A, Methods 201A and 202 or other methods as approved by the Department. If MWP fails a performance test, MWP shall test annually until compliance is demonstrated for three consecutive years before returning to testing once every three years. [06-096 C.M.R. ch. 115, BACT (A-989-71-E-A)]

6. Compliance Assurance Monitoring

   CAM is applicable to particulate matter emissions from Dryer #1. The CAM monitoring requirements are included in the monitoring sections below.

7. Periodic Monitoring

   MWP shall operate, record data, and maintain records from the following periodic monitors for Dryer #1:

   a. Hours of operation for Dryer #1 on a monthly and 12-month rolling total. [06-096 C.M.R ch. 115, BACT (A-989-71-B-A)]
   b. Amount of propane delivered on a monthly and 12-month rolling total basis. [06-096 C.M.R. ch. 115, BACT (A-989-71-B-A)]
   c. Records of monthly inspections and all maintenance activities performed on Dryer #1, Dryer Cyclone, and Wet Scrubber. [06-096 C.M.R. ch. 140, BPT]

8. Parameter Monitors

   During all operating times, MWP shall operate, record data, and maintain records from the following parameter monitors for Dryer #1 in accordance with MWP's approved CAM plan:

Parameter	Monitoring Frequency
Water Recirculation (on/off)	Once Daily
Dryer #1 Stack Testing for PM_{10}	Every third calendar year

[40 C.F.R. Part 64]

9. CEMS and COMS

   There are no CEMS or COMS required for Dryer #1 or its associated control equipment.

I. Milled Material Cyclone and Dust Recovery Cyclone

The Milled Material Cyclone separates the dried wood material from the air stream after the hammermill. The Dust Recovery Cyclone scavenges air from within the pellet processing, bagging, and bulk distribution operations areas to reduce fugitive dust. Collected material is sent to the dryer for fuel. Both cyclones vent to a single baghouse (Cyclone Baghouse) which has a rated control efficiency of 99%.

The Cyclone Baghouse shall be used to control emissions from the Milled Material Cyclone and Dust Recovery Cyclone during all operating times. Monthly inspections shall be conducted of each cyclone and the Cyclone Baghouse and records kept of all maintenance performed.

1. Emission Limits and Streamlining

   For the Cyclone Baghouse, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested, and the applicable emission limits can be found below.

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
PM	0.5 lb/hr	06-096 C.M.R. ch. 115, BACT (A-989-71-A-N)	0.5 lb/hr
Visible Emissions	10% opacity on a 6-minute block average basis, except for no more than one 6-minute block average in a 1-hr period	06-096 C.M.R. ch. 101, § 2(B)(3)(c)	10% opacity on a 6-minute block average basis *
	10% opacity on a 6-minute block average basis	06-096 C.M.R. ch. 115, BACT (A-989-71-A-N)	

* streamlining requested

2. Emission Limit Compliance Methods

   Upon request by the Department, MWP shall perform testing to demonstrate compliance with the emission limits for PM and opacity for the Cyclone Baghouse using test methods approved by the Department. [06-096 C.M.R. ch. 140, BPT]

3. Compliance Assurance Monitoring

   CAM is applicable to particulate matter emissions from the Cyclone Baghouse. The CAM monitoring requirements are included in the monitoring sections below.

4. Periodic Monitoring

MWP shall operate, record data, and maintain records from the following periodic monitors for the Milled Material Cyclone, Dust Recovery Cyclone, and Cyclone Baghouse:

a. Records of monthly inspections for the Milled Material Cyclone, Dust Recovery Cyclone, and Cyclone Baghouse. [06-096 C.M.R. ch. 140, BPT]
b. Records of all maintenance activities performed on the Milled Material Cyclone, Dust Recovery Cyclone, and Cyclone Baghouse. [06-096 C.M.R. ch. 115, BACT (A-989-71-A-N)]

5. Parameter Monitors

During all operating times, MWP shall operate, record data, and maintain records from the following parameter monitors for the Cyclone Baghouse in accordance with MWP's approved CAM plan:

Parameter	Monitoring Frequency
Draft Suction (present/not present)	Once Daily
Sweep Arm Speed Monitor (operating/not operating)	Once Daily
Bag Condition	Monthly

[40 C.F.R. Part 64]

6. CEMS and COMS

There are no CEMS or COMS required for the Milled Material Cyclone, Dust Recovery Cyclone, or Cyclone Baghouse.

J. Thermal Oil Backup and Generator #1

The Thermal Oil Backup is a John Deere model 4045H distillate-fired engine used to continue circulating thermal oil at the cogeneration facility in the event of power outage or equipment failure. The engine is rated at 0.8 MMBtu/hr and was manufactured in 2011. MWP has provided evidence that the engine is certified by the manufacturer and conforms with the applicable EPA emissions tier.

Generator #1 is a Magnum Power Products, LLC 186 kW genset with a John Deere model 6068HF485 distillate-fired engine used for back-up emergency power. The engine is rated

at 1.8 MMBtu/hr and was manufactured in 2010. MWP has provided evidence that the engine is certified by the manufacturer and conforms with the applicable EPA emissions tier.

1. New Source Performance Standards (NSPS)

Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, 40 C.F.R. Part 60, Subpart IIII is applicable to the Thermal Oil Backup and Generator #1 since the units were ordered after July 11, 2005, and manufactured after April 1, 2006. By meeting the requirements of 40 C.F.R. Part 60, Subpart IIII, the internal combustion engines (ICE) also meet the requirements found in *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*, 40 C.F.R. Part 63, Subpart ZZZZ.

a. Emergency Engine Designation and Operating Criteria

Under Subpart IIII, a stationary reciprocating internal combustion engine (ICE) is considered an **emergency** stationary ICE (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 IIII, 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 ICE 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.

[40 CFR §60.4211(f) and §60.4219]

b. 40 C.F.R. Part 60, Subpart IIII Requirements

(1) Manufacturer Certification Requirement
The engines shall be certified by the manufacturer as meeting the emission standards for new nonroad compression ignition engines found in 40 C.F.R. § 60.4202. [40 C.F.R. § 60.4205(b)]

(2) Ultra-Low Sulfur Fuel Requirement
The distillate fuel fired in the engine(s) shall not exceed 15 ppm sulfur (0.0015% sulfur), except that any existing distillate fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted.
[40 C.F.R. § 60.4207(b)]

(3) Non-Resettable Hour Meter Requirement
A non-resettable hour meter shall be installed and operated on each engine. [40 C.F.R. § 60.4209(a)]

(4) Operation and Maintenance Requirement
The engines shall be operated and maintained according to the manufacturer's emission-related written instructions or procedures developed by facility that are approved by the engine manufacturer. MWP may only change those emission-related settings that are permitted by the manufacturer. [40 C.F.R. § 60.4211(a)]

(5) Annual Time Limit for Maintenance and Testing
The engines 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, 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). [40 C.F.R. § 60.4211(f)]

(6) Initial Notification Requirement
No initial notification is required for emergency engines. [40 C.F.R. § 60.4214(b)]

(7) Recordkeeping
MWP shall keep records that include maintenance conducted on the engines and the hours of operation of each engine recorded through the non-resettable hour meter. Documentation shall include the number of hours each unit operated for emergency purposes, the number of hours each unit operated for non-emergency purposes, and the reason each engine was in operation during each time. [40 C.F.R. § 60.4214(b)]

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

National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, 40 C.F.R. Part 63, Subpart ZZZZ is applicable to the Thermal Oil Backup and Generator #1. The units are considered existing, emergency stationary reciprocating internal combustion engines at an area HAP source. However, the units are also subject to New Source Performance Standards. By meeting the requirements of *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines,* 40 C.F.R. Part 60, Subpart IIII the units also meet the requirements found in 40 C.F.R. Part 63, Subpart ZZZZ.

3. Emission Limits and Streamlining

For the Thermal Oil Backup, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested, and the applicable emission limits can be found below.

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
PM	0.24 lb/hr	06-096 C.M.R. ch. 115, BACT (A-989-77-2-A)	0.24 lb/hr
PM_{10}	0.24 lb/hr	06-096 C.M.R. ch. 115, BACT (A-989-77-2-A)	0.24 lb/hr
SO_2	Determined to be insignificant		
NO_x	3.40 lb/hr	06-096 C.M.R. ch. 115, BACT (A-989-77-2-A)	3.40 lb/hr
CO	0.73 lb/hr	06-096 C.M.R. ch. 115, BACT (A-989-77-2-A)	0.73 lb/hr
VOC	0.27 lb/hr	06-096 C.M.R. ch. 115, BACT (A-989-77-2-A)	0.27 lb/hr
Visible Emissions	20% opacity on a 6-minute block average basis, except for no more than two 6-minute block averages in a 3-hr period	06-096 C.M.R. ch. 101, § 2(B)(1)(d)	20% opacity on a 6-minute block average basis *
	20% opacity on a 6-minute block average basis	06-096 C.M.R. ch. 115, BACT (A-989-77-2-A)	

* streamlining requested

For Generator #1, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested, and the applicable emission limits can be found below.

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
PM	0.54 lb/hr	06-096 C.M.R. ch. 115, BACT (A-989-77-2-A)	0.54 lb/hr
PM_{10}	0.54 lb/hr	06-096 C.M.R. ch. 115, BACT (A-989-77-2-A)	0.54 lb/hr
SO_2	Determined to be insignificant		
NO_x	7.72 lb/hr	06-096 C.M.R. ch. 115, BACT (A-989-77-2-A)	7.72 lb/hr
CO	1.66 lb/hr	06-096 C.M.R. ch. 115, BACT (A-989-77-2-A)	1.66 lb/hr
VOC	0.61 lb/hr	06-096 C.M.R. ch. 115, BACT (A-989-77-2-A)	0.61 lb/hr
Visible Emissions	20% opacity on a 6-minute block average basis, except for no more than two 6-minute block averages in a 3-hr period	06-096 C.M.R. ch. 101, § 2(B)(1)(d)	20% opacity on a 6-minute block average basis *
	20% opacity on a 6-minute block average basis	06-096 C.M.R. ch. 115, BACT (A-989-77-2-A)	

* streamlining requested

4. Emission Limit Compliance Methods

   Compliance with the emission limits associated with the Thermal Oil Backup and Generator #1 shall be demonstrated in accordance with the appropriate test methods upon request of the Department.

5. Compliance Assurance Monitoring

   CAM is not applicable to the Thermal Oil Backup or Generator #1.

6. Periodic Monitoring

   MWP shall operate, record data, and maintain records from the following periodic monitors for the Thermal Oil Backup and Generator #1:

   a. Hours of operating time on a calendar year basis.
   b. Log of the duration and reasons for all operating times as they occur.
   c. Records of all maintenance conducted.
   d. Sulfur content of the distillate fuel fired based on fuel receipts from the supplier.

7. Parameter Monitors

   There are no Parameter Monitors required for the Thermal Oil Backup and Generator #1.

8. CEMS and COMS

   There are no CEMS or COMS required for the Thermal Oil Backup and Generator #1.

K. Fire Pump Engine

MWP operates a fire pump with a Cummins Model V-504-F2 engine intended to be used in emergency situations. The Fire Pump Engine is rated at 185 Hp (1.3 MMBtu/hr) and fires distillate fuel. The Fire Pump Engine was manufactured in 1975.

1. New Source Performance Standards (NSPS)

   Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, 40 C.F.R. Part 60, Subpart IIII is not applicable to the Fire Pump Engine since this unit was manufactured prior to April 1, 2006.

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

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

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

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

(1) Operation and Maintenance Requirements
40 CFR § 63.6603(a) and Table 2(d)

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

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

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

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

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

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

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

3. Emission Limits and Streamlining

For the Fire Pump Engine, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested, and the applicable emission limits can be found below.

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
PM	0.16 lb/hr	06-096 C.M.R. ch. 115, BACT (A-989-77-1-A)	0.16 lb/hr
PM_{10}	0.16 lb/hr	06-096 C.M.R. ch. 115, BACT (A-989-77-1-A)	0.16 lb/hr
SO_2	0.67 lb/hr	06-096 C.M.R. ch. 115, BACT (A-989-77-1-A)	0.67 lb/hr
NO_x	5.73 lb/hr	06-096 C.M.R. ch. 115, BACT (A-989-77-1-A)	5.73 lb/hr

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
CO	1.24 lb/hr	06-096 C.M.R. ch. 115, BACT (A-989-77-1-A)	1.24 lb/hr
VOC	0.46 lb/hr	06-096 C.M.R. ch. 115, BACT (A-989-77-1-A)	0.46 lb/hr
Visible Emissions	30% opacity on a 6-minute block average basis, except for no more than two 6-minute block averages in a 3-hr period	06-096 C.M.R. ch. 101, § 2(B)(1)(f)	20% opacity on a 6-minute block average basis *
	20% opacity on a 6-minute block average basis, except for no more than two 6-minute block averages in a 3-hr period	06-096 C.M.R. ch. 115, BACT (A-989-77-1-A)	
	20% opacity on a 6-minute block average basis.	06-096 C.M.R. ch. 140, BPT State-only	

* streamlining requested

4. Emission Limit Compliance Methods

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

5. Compliance Assurance Monitoring

   CAM is not applicable to the Fire Pump Engine.

6. Periodic Monitoring

   MWP shall operate, record data, and maintain records from the following periodic monitors for the Fire Pump Engine:

   a. Hours of operating time on a calendar year basis.
   b. Log of the duration and reasons for all operating times as they occur.
   c. Records of all maintenance conducted.

d. Sulfur content of the distillate fuel fired based on fuel receipts from the supplier.

7. Parameter Monitors

There are no Parameter Monitors required for the Fire Pump Engine.

8. CEMS and COMS

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

L. Screen Engine

MWP operates a portable Finger-Trummell Screen which is powered by a portable engine (Screen Engine). The Screen Engine is a Perkins YD50481 rated at 129 kW (1.2 MMBtu/hr) and fires distillate fuel. The Screen Engine was manufactured in 2003.

The fuel fired in the Screen Engine shall be limited to 20,000 gallons/year, based on a 12-month rolling total, of distillate fuel.

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

The Screen Engine is considered a non-road engine, as opposed to a stationary engine, since the Screen Engine is portable and will be moved to various sites with the screen. Therefore, the Screen Engine is not subject to *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines,* 40 C.F.R. Part 60, Subpart IIII.

2. National Emission Standards for Hazardous Air Pollutants

The Screen Engine is considered a non-road engine, as opposed to a stationary engine, since the Screen Engine is portable and will be moved to various sites with the screen. Therefore, the Screen Engine is not subject to *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines,* 40 C.F.R. Part 63, Subpart ZZZZ.

The definition in 40 C.F.R. § 1068.30 states that a non-road engine is an internal combustion engine that meets certain criteria, including:

Portable or transportable, meaning designed to be and capable of being carried or moved from one location to another. Indicia of transportability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform.

This section (40 C.F.R. § 1068.30) further states that an engine is not a non-road engine if it remains or will remain at a location for more than 12 consecutive months or a shorter period of time for an engine located at a seasonal source. An engine located at a seasonal source (a stationary source that remains in a single location on a permanent basis (i.e., at least two years) and that operates at that single location approximately three months (or more) each year) is an engine that remains at a seasonal source during the full annual operating period of the seasonal source.

3. Emission Limits and Streamlining

For the Screen Engine, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested, and the applicable emission limits can be found below.

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
PM	0.15 lb/hr	06-096 C.M.R. ch. 115, BACT (A-989-77-1-A)	0.15 lb/hr
PM_{10}	0.15 lb/hr	06-096 C.M.R. ch. 115, BACT (A-989-77-1-A)	0.15 lb/hr
SO_2	0.62 lb/hr	06-096 C.M.R. ch. 115, BACT (A-989-77-1-A)	0.62 lb/hr
NO_x	5.34 lb/hr	06-096 C.M.R. ch. 115, BACT (A-989-77-1-A)	5.34 lb/hr
CO	1.15 lb/hr	06-096 C.M.R. ch. 115, BACT (A-989-77-1-A)	1.15 lb/hr
VOC	0.42 lb/hr	06-096 C.M.R. ch. 115, BACT (A-989-77-1-A)	0.42 lb/hr

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
Visible Emissions	30% opacity on a 6-minute block average basis, except for no more than two 6-minute block averages in a 3-hr period	06-096 C.M.R. ch. 101, § 2(B)(1)(f)	20% opacity on a 6-minute block average basis *
	20% opacity on a 6-minute block average basis, except for no more than two 6-minute block averages in a 3-hr period	06-096 C.M.R. ch. 115, BACT (A-989-77-1-A)	
	20% opacity on a 6-minute block average basis.	06-096 C.M.R. ch. 140, BPT State-only	

* streamlining requested

4. Emission Limit Compliance Methods

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

5. Compliance Assurance Monitoring

   CAM is not applicable to the Screen Engine.

6. Periodic Monitoring

   MWP shall operate, record data, and maintain records from the following periodic monitors for the Screen Engine:

   a. Amount of fuel fired on a monthly and 12-month rolling total basis.
   b. Sulfur content of the distillate fuel fired based on fuel receipts from the supplier.

7. Parameter Monitors

   There are no Parameter Monitors required for the Screen Engine.

8. CEMS and COMS

   There are no CEMS or COMS required for the Screen Engine.

M. Portable Engines

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

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

N. Fugitive Emissions

For fugitive emission sources (including stockpiles and roadways), a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested, and the applicable emission limits can be found below.

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
Visible Emissions	20% opacity except for no more than 5 minutes in any 1-hr period. Compliance determined by an aggregate of the individual 15-second opacity observations which exceed 20% in any one hour.	06-096 C.M.R. ch. 101, § 2(B)(4)(a)	20% opacity except for no more than 5 minutes in any 1-hr period during which time visible emissions shall not exceed 30%. Compliance determined by an aggregate of the individual 15-second opacity observations which exceed 20% in any one hour. *
	20% opacity except for no more than 5 minutes in any 1-hr period during which time visible emissions shall not exceed 30%. Compliance determined by an aggregate of the individual 15-second opacity observations which exceed 20% in any one hour.	06-096 C.M.R. ch. 140, BPT State-only	

* streamlining requested

O. General Process Emissions

For general process sources, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested, and the applicable emission limits can be found below.

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
Visible Emissions	20% opacity on a 6-minute block average basis, except for no more than one 6-minute block average in a 1-hr period	06-096 C.M.R. ch. 101, § 2(B)(3)(d)	20% opacity on a 6-minute block average basis*
	20% opacity on a 6-minute block average basis	06-096 C.M.R. ch. 140, BPT State-only	

* streamlining requested

P. Emissions Statement

MWP is subject to emissions inventory requirements contained in *Emission Statements*, 06-096 C.M.R. ch. 137. MWP shall maintain the following records in order to comply with this rule:

1. The amount of each fuel fired in Furnace #1, Dryer #1 (calculated), Fire Pump Engine, Screen Engine, Thermal Oil Backup, and Generator #1 (each) on a monthly basis;
2. The sulfur content of the distillate fuel fired in each engine; and
3. Hours of operation for each emission unit on a monthly basis.

In reporting year 2020 and every third year thereafter, MWP shall report to the Department emissions of hazardous air pollutants as required by 06-096 C.M.R. ch. 137, § (3)(C). The Department will use these reports to calculate and invoice for the applicable annual air quality surcharge for the subsequent three billing periods. MWP shall pay the annual air quality surcharge, calculated by the Department based on these reported emissions of hazardous air pollutants, by the date required in Title 38 M.R.S. § 353-A(3).
[38 M.R.S. § 353-A(1-A)]

Q. Facility Annual Emissions

1. Total Annual Emissions

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

- Operation of Furnace #1 and Pre-Dryer #1 at full capacity for 8,200 hr/year;
- Operation of Dryer #1 at full capacity for 7,950 hr/year;
- Operation of the Cyclone Baghouse for 7,950 hr/year;
- Operation of the Fire Pump Engine, Thermal Oil Backup, and Generator #1 for 100 hr/year each; and
- Firing 20,000 gal/year of fuel in the Screen Engine.

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

	PM	**PM_{10}**	**$PM_{2.5}$**	**SO_2**	**NO_x**	**CO**	**VOC**
Dryer #1	33.8	50.9	50.9	20.3	19.9	60.0	49.7
Cyclone Baghouse	2.0	2.0	2.0	–	–	–	–
Furnace #1 & Pre-Dryer #1	68.9	68.9	68.9	15.2	97.6	243.5	49.2
Fire Pump Engine	–	–	–	–	0.3	0.1	–
Screen Engine	0.2	0.2	0.2	0.7	6.0	1.3	0.5
Thermal Oil Backup	–	–	–	–	0.2	–	–
Generator #1	–	–	–	–	0.4	0.1	–
Total TPY	**104.9**	**122.0**	**122.0**	**36.2**	**124.4**	**305.0**	**99.4**

Pollutant	**Tons/year**
Single HAP	9.9
Total HAP	24.9

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, 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 greater than 100,000 tons per year, based on the following:

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

As defined in 06-096 C.M.R. ch. 100, any source emitting 100,000 tons/year or more of CO_2e is a major source for GHG. This license includes applicable requirements addressing GHG emissions from this source, as appropriate.

III. AMBIENT AIR QUALITY ANALYSIS

MWP 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 (A-989-71-E-A). 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 this Part 70 License A-989-70-A-I 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 MWP pursuant to the Department's preconstruction permitting requirements have been incorporated into this Part 70 license, except for such conditions that the Department has determined are obsolete, extraneous, or otherwise environmentally insignificant, as explained in

the Findings of Fact accompanying this Order. As such, the conditions in this license supersede all previously issued air license conditions.

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

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

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

STANDARD STATEMENTS

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

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

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

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

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

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

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

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

Nothing in this section or any Part 70 license shall alter or affect the provisions of Section 303 of the CAA (emergency orders), including the authority of EPA under Section 303; the liability of an owner or operator of a source for any violation of Applicable requirements prior to or at the time of permit issuance; or the ability of EPA to obtain information from a source pursuant to Section 114 of the CAA.

The following requirements have been specifically identified as not applicable based upon information submitted by the licensee in an application dated October 2017.

Permit Shield Table

Source	Citation	Description	Basis for Determination
Facility	06-096 C.M.R. ch. 134	VOC RACT	Non-exempt equipment emit less than 40 tpy
Facility	06-096 C.M.R. ch. 138	NO_x RACT	Not a major source prior to 1995.
Dryer #1	40 C.F.R. Part 60, Subpart Dc	Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units	Unit does not meet the definition of "steam generating unit."
Fire Pump Engine	40 C.F.R. Part 60, Subpart IIII	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	Manufactured prior to 2006.
Screen Engine	40 C.F.R. Part 60, Subpart IIII	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	Unit is portable.
Screen Engine	40 C.F.R. Part 63, Subpart ZZZZ	National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines	Unit is portable.

Source	Citation	Description	Basis for Determination
Furnace #1	40 C.F.R. Part 63, Subpart JJJJJJ	National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources	Unit doesn't meet definition of "boiler."
Dryer #1	40 C.F.R. Part 63, Subpart JJJJJJ	National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources	Unit doesn't meet definition of "boiler."
Facility	40 C.F.R. Part 98	Mandatory Greenhouse Gas Reporting	Potential to emit less than 25,000 metric tons of CO_2e when biomass is excluded.

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

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

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

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

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

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

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

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

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

STANDARD CONDITIONS

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

(2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in 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 and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the Part 70 license. The records shall be submitted to the Department upon written request or in accordance with other provisions of this license. [06-096 C.M.R. ch. 140]

(7) The licensee shall comply with all terms and conditions of the air emission license. The submission of notice of intent to reopen for cause by the Department, the filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the

licensee, or the filing of an application by the licensee for the renewal of a Part 70 license or amendment shall not stay any condition of the Part 70 license. [06-096 C.M.R. ch. 140]

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(11) Upon the written request of the Department, the licensee shall establish and maintain such records; make such reports; install, use, and maintain such monitoring equipment; sample such emissions in accordance with such methods, at such locations, at such intervals, and

in such manner as the Department shall prescribe; and provide other information as the Department may reasonably require to determine the licensee's compliance status. [06-096 C.M.R. ch. 140]

(12) The licensee shall submit semiannual reports of any required periodic monitoring. 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) **Furnace #1 and Pre-Dryer #1**

A. Furnace #1 is licensed to fire wood/biomass materials. [06-096 C.M.R. ch. 115, BACT (A-989-71-E-A)]

B. MWP shall not exceed an annual operating limit of 8,200 hr/year for Furnace #1 based on a 12-month rolling total. [06-096 C.M.R. ch. 115, BACT (A-989-71-E-A)]

C. Furnace #1 and Pre-Dryer #1 shall both exhaust through Stack #3 which shall have a minimum height of 125-feet above ground level. [06-096 C.M.R. ch. 115, BACT (A-989-71-E-A)]

D. Control Equipment

1. Emissions of PM/PM_{10}/$PM_{2.5}$ from Furnace #1 shall be controlled by the operation and maintenance of an ESP except for periods of startup and shutdown. During normal operation, MWP shall operate, at a minimum, the number of ESP chambers and number of fields per chamber that operated during the most recent demonstration of compliance with the licensed particulate matter emission limits. [06-096 C.M.R. ch. 115, BACT (A-989-71-E-A)]

2. Emissions of PM/PM_{10}/$PM_{2.5}$ from Furnace #1 and Pre-Dryer #1 shall be controlled by the operation and maintenance of a cyclone and multiclone during all operating times. [06-096 C.M.R. ch. 115, BACT (A-989-71-E-A)]

3. Emissions of NO_x from Furnace #1 shall be controlled by the operation and maintenance of an FGR system during all operating times. [06-096 C.M.R. ch. 115, BACT (A-989-71-E-A)]

E. Emission Limits for Furnace #1 and Pre-Dryer #1

1. Emissions from Furnace #1 shall not exceed the following limits:

Pollutant	lb/MMBtu	Origin and Authority	Enforceability
PM	0.030	40 C.F.R. Part 60, § 60.43b(h)(1)	Federally Enforceable

2. Emissions from Furnace #1 and Pre-Dryer #1 (combined) shall not exceed the following limits:

Pollutant	lb/hr	Origin and Authority	Enforceability
PM	16.8	06-096 C.M.R. ch. 115, BACT (A-989-71-E-A)	Federally Enforceable
PM_{10}	16.8	06-096 C.M.R. ch. 115, BACT (A-989-71-E-A)	Federally Enforceable
$PM_{2.5}$	16.8	06-096 C.M.R. ch. 115, BACT (A-989-71-E-A)	Federally Enforceable
SO_2	3.7	06-096 C.M.R. ch. 115, BACT (A-989-71-E-A)	Federally Enforceable
NO_x	23.8	06-096 C.M.R. ch. 115, BACT (A-989-71-E-A)	Federally Enforceable
CO	59.4	06-096 C.M.R. ch. 115, BACT (A-989-71-E-A)	Federally Enforceable

Pollutant	lb/hr	Origin and Authority	Enforceability
VOC*	12.0	06-096 C.M.R. ch. 115, BACT (A-989-71-E-A)	Federally Enforceable

*Expressed as propane

3. Visible emissions from Stack #3 shall not exceed 20% opacity on a six (6) minute block average basis, except no more than one (1) six-minute period per hour of not more than 27% opacity except for periods of startup and shutdown.
[40 C.F.R. Part 60, §60.43b(f) and 06-096 C.M.R. 115, BACT (A-989-71-E-A)]

F. Furnace #1 Startup/Shutdown Provisions

In order to demonstrate compliance with visible emission limits for Furnace #1 during periods of startup and shutdown (as defined in this license), MWP shall comply with the following good air pollution control practices:

1. Adherence to the manufacturer's suggested standard operating procedures for startup and shutdown;
2. Before startup, inspection of the ESP and ESP dust collection system equipment to ensure that the equipment is free of foreign matter and to ensure their proper function;
3. During startup, engagement of the ESP as soon as it is deemed safe to do so in accordance with manufacturer's recommendations; and
4. During shutdown, operation of the ESP for as long as it is deemed safe to do so in accordance with manufacturer's recommendations.

[06-096 CMR 115, BACT (A-989-77-3-A)]

G. Emission Limit Compliance Methods

1. Upon request by the Department, MWP shall perform testing to demonstrate compliance with the emission limits for PM, PM_{10}, $PM_{2.5}$, SO_2, NO_x, CO, and VOC for Furnace #1 and Pre-Dryer #1 using test methods approved by the Department. [06-096 C.M.R. ch. 140]

2. MWP shall demonstrate compliance with the PM and opacity limits established in 40 C.F.R. Part 60, Subpart Db for Furnace #1 through the use of an ESP predictive model operated in accordance with 40 C.F.R. § 60.48a. [40 C.F.R. § 60.48b(j)(6)]

3. MWP shall perform performance tests for opacity from Furnace #1 using 40 C.F.R. Part 60, Appendix A, Method 9 per the schedule contained in 40 C.F.R. §§ 60.48b(a)(1), (2), or (3). [40 C.F.R. § 60.48b(a)]

H. Periodic Monitoring

MWP shall operate, record data, and maintain records from the following periodic monitors for Furnace #1 and Pre-Dryer #1:

1. Hours of operation for Furnace #1 on a monthly and 12-month rolling total. [06-096 C.M.R ch. 115, BACT (A-989-71-E-A)]
2. Hours of operation for Furnace #1 and Pre-Dryer #1 on a monthly and calendar year total. [06-096 C.M.R. ch. 137]
3. Amount of wood (tons) fired in Furnace #1 on a monthly basis. [40 CFR § 60.49b(d)(2)]
4. Secondary voltage on the ESP monitored continuously and recorded at least once per 8-hour shift whenever Furnace #1 is in operation. [06-096 C.M.R ch. 115, BACT (A-989-71-E-A)]
5. Records of maintenance activities performed on Furnace #1, Pre-Dryer #1, the ESP, and all facility cyclones/multiclones. [06-096 C.M.R. ch. 115, BACT (A-989-71-E-A)]
6. Records documenting startups, shutdowns, and malfunctions for Furnace #1 and its associated control equipment including:
   a. Dates, times, and duration of each startup, shutdown, and malfunction;
   b. Records of pre-startup inspections of the ESP and ESP dust collection system;
   c. Time the ESP was engaged during startup;
   d. Time the ESP was disengaged during shutdown;
   [06-096 C.M.R. ch. 115, BACT (A-989-77-3-A)]
7. During all startups/shutdowns, MWP shall continuously monitor the following items. MWP shall record the monitored value at least once per hour. The records of hourly readings shall be included in the startup/shutdown record.
   a. Thermal oil temperature;
   b. ESP exit gas oxygen content; and
   c. Secondary voltage on each field of the ESP.
   [06-096 C.M.R. ch. 115, BACT (A-989-77-3-A)]

I. Parameter Monitors

During all operating times, MWP shall operate, record data, and maintain records from the following parameter monitors for Furnace #1 and Pre-Dryer #1:

1. The following parameters associated with the ESP predictive model:

Parameter	Monitoring Frequency
Number of ESP fields in operation	Continuously
ESP Secondary Voltage	Continuously
Flue gas exhaust temperature entering the ESP	Continuously

[40 C.F.R. § 60.48a(o)(3)]

2. The following monitors in accordance with MWP's approved CAM plan:

Parameter	Monitoring Frequency
FGR Damper (open/closed)	Once Daily
Exhaust O_2 Concentration	Continuously
Pressure Differential Across Multiclone	Continuously
Pre-Dryer #1 Stack Testing for PM	Upon Request

[40 C.F.R. Part 64]

J. Furnace #1 shall meet all applicable requirements contained in 40 C.F.R. Part 60, Subpart Db.

K. MWP shall submit to the Department and EPA semiannual excess emission reports for Furnace #1 per the requirements of 40 C.F.R. § 60.49b(h).

(15) **Dryer #1**

A. Dryer #1 is licensed to fire wood/biomass materials and propane. [06-096 C.M.R. ch. 115, BACT (A-989-71-B-A)]

B. MWP shall not exceed an annual operating limit of 7,950 hr/year for Dryer #1 based on a 12-month rolling total. [06-096 C.M.R. ch. 115, BACT (A-989-71-B-A)]

C. Emissions of PM/PM_{10} from Dryer #1 shall be controlled by the operation and maintenance of the Dryer Cyclone and Wet Scrubber during all operating times. [06-096 C.M.R. ch. 115, BACT (A-989-71-B-A)]

D. Monthly inspections shall be conducted of the Dryer Cyclone and Wet Scrubber. [06-096 C.M.R. ch. 140, BPT (A-989-71-D-R/M)] **Enforceable by State-only**

E. Emission Limits for Dryer #1

1. Emissions from Dryer #1 shall not exceed the following limits:

Pollutant	lb/hr	Origin and Authority	Enforceability
PM	8.5	06-096 C.M.R. ch. 115, BACT (A-989-71-E-A)	Federally Enforceable
PM_{10}	12.8	06-096 C.M.R. ch. 115, BACT (A-989-71-E-A)	Federally Enforceable
SO_2	5.1	06-096 C.M.R. ch. 115, BACT (A-989-71-E-A)	Federally Enforceable
NO_x	5.0	06-096 C.M.R. ch. 115, BACT (A-989-71-E-A)	Federally Enforceable
CO	15.1	06-096 C.M.R. ch. 115, BACT (A-989-71-E-A)	Federally Enforceable
VOC*	12.5	06-096 C.M.R. ch. 115, BACT (A-989-71-E-A)	Federally Enforceable

*Expressed as propane

2. Visible emissions from the Wet Scrubber shall not exceed 20% opacity on a six (6) minute block average basis, except no more than two (2) six-minute block averages in a 3-hour period of not more than 60% opacity. [06-096 C.M.R. 115, BACT (A-989-71-E-A)]

F. Emission Limit Compliance Methods

1. Upon request by the Department, MWP shall perform testing to demonstrate compliance with the emission limits for PM, SO_2, NO_x, CO, VOC, and opacity for Dryer #1 using test methods approved by the Department. [06-096 C.M.R. ch. 140]

2. MWP shall test the Wet Scrubber exhaust stack to demonstrate compliance with the PM_{10} limit for Dryer #1 once every three calendar years (next test to be completed by 12/31/2021). Testing shall be performed in accordance with 40 C.F.R. Part 60, Appendix A, Methods 201A and 202 or other methods as approved by the Department. If MWP fails a performance test, MWP shall test

annually until compliance is demonstrated for three consecutive years before returning to testing once every three years.
[06-096 C.M.R. ch. 115, BACT (A-989-71-E-A)]

G. Periodic Monitoring

MWP shall operate, record data, and maintain records from the following periodic monitors for Dryer #1:

1. Hours of operation for Dryer #1 on a monthly and 12-month rolling total. [06-096 C.M.R ch. 115, BACT (A-989-71-B-A)]
2. Amount of propane delivered on a monthly and 12-month rolling total basis. [06-096 C.M.R. ch. 115, BACT (A-989-71-B-A)]
3. Records of monthly inspections and all maintenance activities performed on Dryer #1, Dryer Cyclone, and Wet Scrubber. [06-096 C.M.R. ch. 140, BPT]

H. Parameter Monitors

During all operating times, MWP shall operate, record data, and maintain records from the following parameter monitors for Dryer #1 in accordance with MWP's approved CAM plan:

Parameter	Monitoring Frequency
Water Recirculation (on/off)	Once Daily
Dryer #1 Stack Testing for PM_{10}	Every third calendar year

[40 C.F.R. Part 64]

(16) **Milled Material Cyclone and Dust Recovery Cyclone**

A. Emissions of PM/PM_{10} from the Milled Material Cyclone and Dust Recovery Cyclone shall be controlled by the operation and maintenance of the Cyclone Baghouse during all operating times. [06-096 C.M.R. ch. 115, BACT (A-989-71-A-N)]

B. Monthly inspections shall be conducted on the Milled Material Cyclone, Dust Recovery Cyclone, and Cyclone Baghouse.
[06-096 C.M.R. ch. 140, BPT (A-989-71-D-R/M)] **Enforceable by State-only**

C. Emission Limits for the Cyclone Baghouse

1. Emissions from the Cyclone Baghouse shall not exceed the following limits:

Pollutant	lb/hr	Origin and Authority	Enforceability
PM	0.5	06-096 C.M.R. ch. 115, BACT (A-989-71-A-N)	Federally Enforceable

2. Visible emissions from the Cyclone Baghouse shall not exceed 10% opacity on a six (6) minute block average basis. [06-096 C.M.R. 115, BACT (A-989-71-A-N)]

D. Upon request by the Department, MWP shall perform testing to demonstrate compliance with the PM emission limit and opacity for the Cyclone Baghouse using test methods approved by the Department. [06-096 C.M.R. ch. 140]

E. Periodic Monitoring

MWP shall operate, record data, and maintain records from the following periodic monitors for the Milled Material Cyclone, Dust Recovery Cyclone, and Cyclone Baghouse:

1. Records of monthly inspections for the Milled Material Cyclone, Dust Recovery Cyclone, and Cyclone Baghouse. [06-096 C.M.R. ch. 140, BPT] **Enforceable by State-only**
2. Records of all maintenance activities performed on the Milled Material Cyclone, Dust Recovery Cyclone, and Cyclone Baghouse. [06-096 C.M.R. ch. 115, BACT (A-989-71-A-N)]

F. Parameter Monitors

During all operating times, MWP shall operate, record data, and maintain records from the following parameter monitors for the Cyclone Baghouse in accordance with MWP's approved CAM plan:

Parameter	Monitoring Frequency
Draft Suction (present/not present)	Once Daily
Sweep Arm Speed Monitor (operating/not operating)	Once Daily
Bag Condition	Monthly

[40 C.F.R. Part 64]

(17) **Thermal Oil Backup and Generator #1**

A. The Thermal Oil Backup and Generator #1 shall each be limited to 100 hours of operation per calendar year, excluding operating hours during emergency situations. [06-096 C.M.R. ch. 115, BACT (A-989-77-2-A)]

B. Emissions shall not exceed the following:
[06-096 C.M.R. ch. 115, BACT (A-989-77-2-A)]

Unit	PM (lb/hr)	PM_{10} (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Thermal Oil Backup	0.24	0.24	–	3.40	0.73	0.27
Generator #1	0.54	0.54	–	7.72	1.66	0.61

C. Visible emissions from the Thermal Oil Backup and Generator #1 shall each not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BACT (A-989-77-2-A)]

D. The Thermal Oil Backup and Generator #1 shall each meet the applicable requirements of 40 C.F.R. Part 60, Subpart IIII, including the following:

1. Manufacturer Certification
The engines shall be certified by the manufacturer as meeting the emission standards for new nonroad compression ignition engines found in § 60.4202. [40 C.F.R. § 60.4205(b)]

2. Ultra-Low Sulfur Fuel
The fuel fired in the engines shall not exceed 15 ppm sulfur (0.0015% sulfur). Compliance with the fuel sulfur content limit shall be based on fuel records from the supplier documenting the type of fuel delivered and the sulfur content of the fuel. [40 C.F.R. § 60.4207(b) and 06-096 C.M.R. ch. 115, BACT (A-989-77-2-A)]

3. Non-Resettable Hour Meter
A non-resettable hour meter shall be installed and operated on each engine.
[40 C.F.R. § 60.4209(a)]

4. Annual Time Limit for Maintenance and Testing
   a. As emergency engines, the units shall each be limited to 100 hours/year for maintenance checks and readiness testing, emergency demand response, and periods of voltage or frequency deviation from standards. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not

include 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). These limits are based on a calendar year. Compliance shall be demonstrated by records (electronic or written log) of all engine operating hours. [40 C.F.R. § 60.4211(f) and 06-096 C.M.R. ch. 115, BACT (A-989-77-2-A)]

b. MWP shall keep records that include maintenance conducted on each engine and the hours of operation of each engine recorded through the non-resettable hour meter. Documentation shall include the number of hours each unit operated for emergency purposes, the number of hours each unit operated for non-emergency purposes, and the reason each engine was in operation during each time. [40 C.F.R. § 60.4214(b)]

5. Operation and Maintenance
The engines shall be operated and maintained according to the manufacturer's emission-related written instructions. MWP may only change those emission-related settings that are permitted by the manufacturer. [40 C.F.R. § 60.4211(a)]

(18) **Fire Pump Engine**

A. The Fire Pump Engine shall be limited to 100 hours of operation per calendar year, excluding operating hours during emergency situations.
[06-096 CMR 115, BACT (A-989-77-1-A)]

B. Fuel Sulfur Content

1. As of July 1, 2018, the distillate fuel fired in the Fire Pump Engine shall have a maximum sulfur content of 0.0015% by weight (15 ppm). Any fuel purchased and on-site prior to this date may be used until depleted.
2. MWP shall demonstrate compliance with the fuel sulfur limits based on fuel receipts from the supplier.

[38 M.R.S. § 603-A(2)(A)(3) and 06-096 C.M.R. ch. 140, BPT]

C. Emissions shall not exceed the following [06-096 C.M.R. 115, BACT (A-989-77-1-A)]:

Unit	PM (lb/hr)	PM_{10} (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Fire Pump Engine	0.16	0.16	0.67	5.73	1.24	0.46

D. Visible emissions from the Fire Pump Engine shall not exceed 20% opacity on a 6-minute block average. [06-096 C.M.R. ch. 140, BPT]

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

1. MWP shall meet the following operational limitations for the Fire Pump Engine:

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

   Records shall be maintained documenting compliance with the operational limitations.

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

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

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

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

   a. The engine shall be limited to 100 hours/year for maintenance checks and readiness testing. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include 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). These limits are based on a calendar year. Compliance shall be demonstrated by records (electronic or written logs) of all engine operating hours. [40 C.F.R. § 63.6640(f) and 06-096 C.M.R. ch. 140, BPT]

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

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

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

(19) **Screen Engine**

A. Total fuel used for the Screen Engine shall not exceed 20,000 gal/year of distillate fuel. Compliance shall be demonstrated by fuel records showing the quantity and type of fuel delivered. Records of annual fuel use shall be kept on a monthly and 12-month rolling total basis. [06-096 CMR 115, BACT (A-989-77-1-A)]

B. Fuel Sulfur Content

1. As of July 1, 2018, the distillate fuel fired in the Screen Engine shall have a maximum sulfur content of 0.0015% by weight (15 ppm). Any fuel purchased and on-site prior to this date may be used until depleted.
2. MWP shall demonstrate compliance with the fuel sulfur limits based on fuel receipts from the supplier.

[38 M.R.S. § 603-A(2)(A)(3) and 06-096 C.M.R. ch. 140, BPT]

C. Emissions shall not exceed the following
[06-096 C.M.R. 115, BACT (A-989-77-1-A)]:

Unit	PM (lb/hr)	PM_{10} (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Screen Engine	0.15	0.15	0.62	5.34	1.15	0.42

D. Visible emissions from the Screen Engine shall not exceed 20% opacity on a 6-minute block average. [06-096 C.M.R. ch. 140, BPT]

(20) **Fugitive Emissions**

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed 20% opacity, except for no more than five minutes in any one-hour period during which time visible emissions shall not exceed 30% opacity. Compliance shall be determined by an aggregate of the individual fifteen-second opacity observations which exceed 20% in any one hour. [06-096 C.M.R. ch. 140, BPT]

(21) **General Process Sources**

Visible emissions from any general process source shall not exceed an opacity of 20% on a six-minute block average basis. [06-096 C.M.R. ch. 140, BPT]

(22) **Parameter Monitor General Requirements**
[06-096 C.M.R. ch. 140 and 117]

A. 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.

B. 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 constitutes a valid hour.

C. 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.

Enforceable by State-only

(23) **Compliance Assurance Monitoring (CAM) – General Requirements**

A. The licensee shall operate and monitor all emission units and their associated control equipment in accordance with the approved CAM Plan.
[40 C.F.R. Part 64]

B. Any excursion shall be reported in semiannual reports. If excursions occur, the licensee must also certify intermittent compliance with the emission limits for the control device monitored in the annual compliance certification. [40 C.F.R. Part 64]

C. Upon detecting an excursion, the licensee shall restore normal operation of the control equipment as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. [40 C.F.R. § 64.7(d)]

D. Prior to making any changes to the approved CAM plan, the licensee shall notify the Department and, if necessary, submit a proposed license modification application to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters. [40 C.F.R. § 64.7(e)]

E. Any change of the target level shall be submitted in a letter to the Department for written approval. [06-096 C.M.R. ch. 140, BPT]

(24) **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 and parameter monitors required by this license. [06-096 C.M.R. ch. 117]

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

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

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

(26) **Annual Compliance Certification**

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

The annual compliance certification shall be considered on-time if the postmark of the submittal is 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]

(27) **Annual Emission Statement**

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

B. MWP shall keep the following records in order to comply with 06-096 C.M.R. ch. 137:

1. The amount of each fuel fired in Furnace #1, Dryer #1 (calculated), Fire Pump Engine, Screen Engine, Thermal Oil Backup, and Generator #1 (each) on a monthly basis;
2. The sulfur content of the distillate fuel fired in each engine; and
3. Hours of operation for each emission unit on a monthly basis.

[06-096 C.M.R. ch. 137]

C. In reporting year 2020 and every third year thereafter, MWP shall report to the Department emissions of hazardous air pollutants as required by 06-096 C.M.R. ch. 137, § (3)(C). MWP shall pay the annual air quality surcharge, calculated by the Department based on these reported emissions of hazardous air pollutants, by the date required in Title 38 M.R.S. § 353-A(3). [38 M.R.S. § 353-A(1-A)]

(28) **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. § 585-B, §§5	Mercury Emission Limit	Enforceable by State-only

(29) **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]

(30) **Asbestos Abatement**

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

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

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

B. Pursuant to Title 5 M.R.S. §10002, and 06-096 C.M.R. ch. 140, the Part 70 license shall not expire and all terms and conditions shall remain in effect until the Department takes final action on the renewal application of the Part 70 license. An existing source submitting a complete renewal application under 06-096 C.M.R. ch. 140 prior to the expiration of the Part 70 license will not be in violation of operating without a Part 70 license. **Enforceable by State-only**

(32) **Previous New Source Review Licenses**

MWP is subject to all previous New Source Review (NSR) requirements summarized in this Part 70 air emission license, and the NSR requirements remain in effect even if this 06-096 C.M.R. ch. 140 Air Emissions License, A-989-70-A-I, expires.

DONE AND DATED IN AUGUSTA, MAINE THIS 5 DAY OF November , 2018.

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

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 10/10/17
Date of application acceptance: 10/11/17

Date filed with the Board of Environmental Protection:

Filed
NOV 0 5 2018
State of Maine
Board of Environmental Protection

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