

Worcester Energy Company, Inc.)
Washington County)
Deblois, Maine)
A-216-70-A-I)

**DEPARTMENTAL
 FINDINGS OF FACT AND ORDER
 PART 70 AIR EMISSION LICENSE**

After review of the Initial Part 70 License application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

FACILITY	Worcester Energy Company, Inc. (Worcester Energy)
LICENSE NUMBER	A-216-70-A-I
LICENSE TYPE	Initial Part 70 License
NAIC CODES	4911 – Electrical Generation
NATURE OF BUSINESS	Electric Generating Station
FACILITY LOCATION	Lane Road, Deblois
DATE OF LICENSE ISSUANCE	June 26, 2002
LICENSE EXPIRATION DATE	June 26, 2007

B. Emission Equipment

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

EMISSION UNIT ID	UNIT CAPACITY	UNIT TYPE
Boiler #1	135.5 MMBtu/hr	Biomass boiler
Boiler #2	135.5 MMBtu/hr	Biomass boiler
Boiler #3	135.5 MMBtu/hr	Biomass boiler
Blackstart Generator	9.76 MMBtu/hr	Generator
353 Generator	2.93 MMBtu/hr	Generator

Worcester Energy has additional activities not listed in the emission equipment table above, that are insignificant, but may be found in the application submitted in March of 1998.

C. Application Classification

The application for Worcester Energy 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 Chapter 140 for a Part 70 source.

II. EMISSION UNIT DESCRIPTION

A. Process Overview

Worcester Energy consists of a fuel handling system, fluidized bed biomass fired boilers followed by an electrostatic precipitator.

Biomass (peat, sawdust, wood chips, and similar material) is received from enclosed trailer vans and off loaded via belt conveyor to a silo where it is stored.

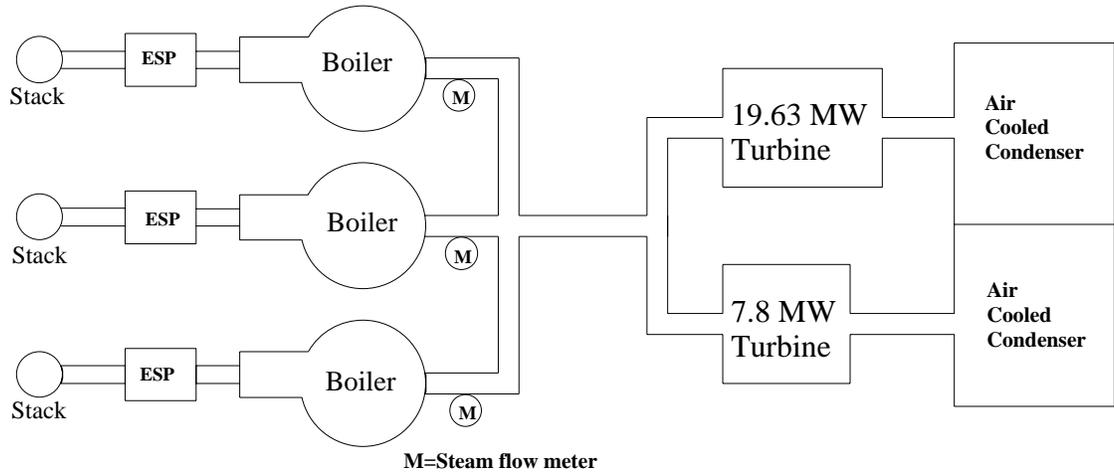
Fuel is fed to each boiler by a drag chain with adjustable feed, a rotary seal valve. The chips enter a bed of refractory sand which is fluidized by the primary air. The mixing action of the sand promotes efficient combustion.

Number 1 or 2 fuel oil can be used to heat the primary air, which raises the fluidized bed temperature to that required to ignite the main fuel. The more commonly used method of starting the first boiler is to make a "bonfire" on the sand. Once one boiler is up and running its heat may be used to get the bed of the other boilers up to temperature. Primary, secondary and tertiary air are supplied by a forced draft fan and are heated in a tubular heater.

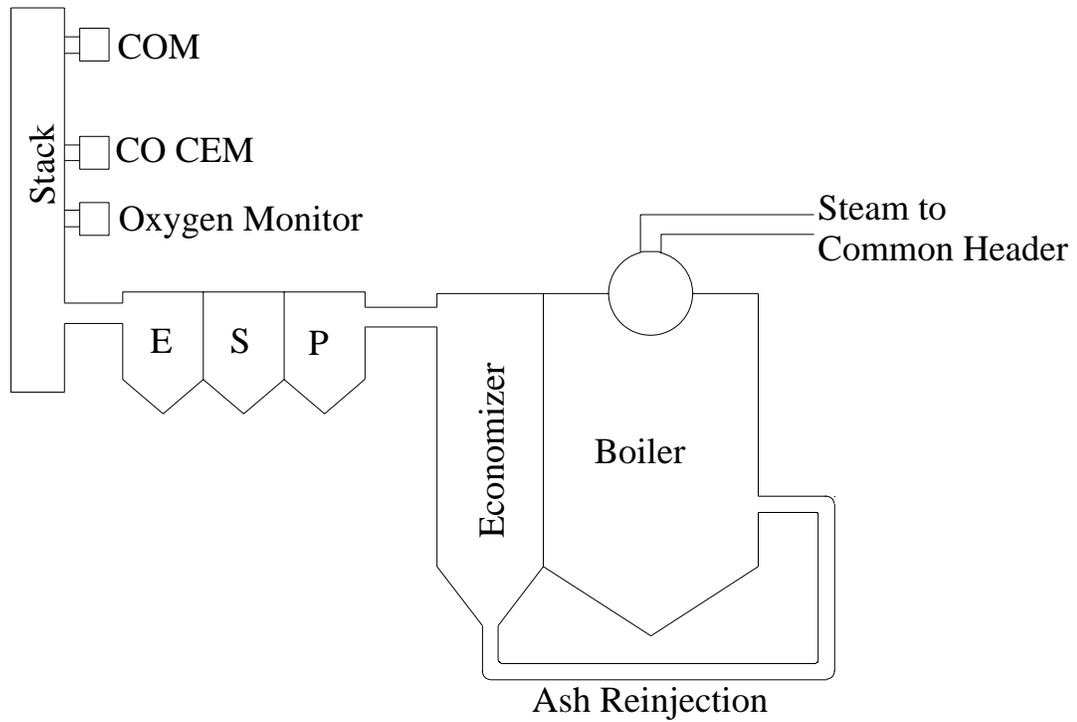
Combustion gasses from each boiler pass through an economizer followed by an electrostatic precipitator (ESP) and vent through a 185' AGL stack.

Ash from the economizer is re-injected pneumatically into the boiler. Ash is wetted before discharge to enclosed transport vehicles. Ash is disposed of in accordance with Department rules.

Basic System Arrangement



Boiler to Stack Arrangement



B. Boilers 1, 2 and 3

Boilers 1, 2 and 3 are atmospheric fluidized bubbling bed boilers, manufactured and installed in 1988 with a maximum firing rate of 135.5 MMBtu/hr firing biomass and are subject to the provisions of New Source Performance Standards (NSPS) requirements 40 CFR Part 60, Subpart Db. Boiler #1, #2 and #3 steam production rate is 84,000 #/hr each, based on a feed rate of 15.0 tons/hour at 4500 Btu per pound of biomass fuel.

Each boiler has two auxiliary burners, each having a maximum firing rate of 33.0 MMBtu/hr firing #2 fuel oil with a maximum sulfur content of 0.05%.

The operation and maintenance of an electrostatic precipitator (ESP) on each boiler controls particulate emissions. Worcester Energy operates three banks of ESP fields in each of the three ESPs.

Streamlining

1. 40CFR Part 60.43b(c)(1), (f), (g) and MEDEP Chapter 103 regulate particulate matter (PM) emission limits. However, Best Practical Treatment (BPT) is more stringent.
2. Chapter 101 is applicable for visible emissions. However, 40 CFR Part 60.43b(f) is more stringent.
3. 40 CFR Part 60 and Chapter 117 require the use of Continuous Opacity Monitors (COM). However, Chapter 117 is at least as stringent as 40 CFR Part 60.
4. 40 CFR Part 60.13 and Chapter 117 detail the sampling frequency of the CEM and COM. However, Chapter 117 is at least as stringent as 40 CFR Part 60.
5. 40 CFR 60.11(d) has been streamlined into Condition #7.
6. 40 CFR 60.11 (g) has been streamlined into Condition #14.

Periodic Monitoring

Stack testing for particulate matter emission rates after 6,000 hours of operation.

Periodic monitoring for particulate matter emissions shall be the following, taken once per shift: ESP primary and secondary voltages on each field as well as primary and secondary current on each field.

Documentation that all CEMs are continuously accurate, reliable and operated in accordance with Chapter 117, 40 CFR Part 51 Appendix P, and 40CFR Part 60 Appendices B and F.

VOC monitoring will consist of a stack test to determine primary compliance. Demonstrated CO and opacity limits through CEM/COM data provides reasonable assurance the VOC emissions are being met.

C. Miscellaneous Emissions Units

Miscellaneous emission units include the following: A 9.76 MMBtu/hr Blackstart Generator and a 2.93 MMBtu/hr 353 Generator.

Streamlining

Chapter 101, Section 2(C) is applicable for visible emissions; however, the BPT opacity limit is more stringent.

Periodic Monitoring

Periodic monitoring shall consist of record keeping which includes records of fuel use through purchase receipts indicating amount (gallons) and percent sulfur by weight (documented through supplier fuel receipts) for the diesel units.

Based on the type and amount of fuel for which the diesel units were designed, and operating in a manner consistent with good pollution control practices, it is unlikely the diesel unit will exceed opacity limits. Therefore, periodic monitoring by the source for opacity in the form of visible emission testing in accordance with 40 CFR Part 60, Appendix A, Method 9 is not required. However, neither the EPA nor the state is precluded from performing its own testing and may take enforcement action for any violations discovered.

D. Peat Bagging System

The peat bagging system at Worcester Energy consists of a conveyor from the fuel conveyor to the bagging machine.

Periodic Monitoring

Based on best management practices, peat bagging system emissions should not exceed the opacity limits. Therefore, periodic monitoring for opacity in the form of visible emission is not required. However, neither the EPA nor the DEP is precluded from performing its own testing and may take enforcement action for any violations discovered.

E. General Process Sources

General process particulate matter sources at Worcester Energy include wood chip conveyors, transfer points and a portable wood chipper, which may or may not be on site. Any conveyor totally within a building shall be considered enclosed.

Periodic Monitoring

Based on best management practices, general process emission sources should not exceed the opacity limits. Therefore, periodic monitoring for opacity in the form of visible emission is not required. However, neither the EPA nor the DEP is precluded from performing its own testing and may take enforcement action for any violations discovered.

F. Fugitive Emissions

Fugitive particulate matter sources at Worcester Energy includes material stockpiles and roadways.

Periodic Monitoring

Based on best management practices, fugitive emission sources should not exceed the opacity limits. Therefore, periodic monitoring for opacity in the form of visible emission is not required. However, neither the EPA nor the DEP is precluded from performing its own testing and may take enforcement action for any violations discovered.

G. Facility Emissions

The following total licensed annual emissions for the facility are based on the following raw materials used. All usages are based on a 12 month rolling total.

- Combined Boiler 1, 2 and 3 biomass use of 395,660 tons per year (4,500 Btu/lb, 50% moisture).

- 847,800 gallons combined of #2 fuel oil (0.05% sulfur by weight).
- Blackstart Generator fuel use of 106,087 gallons per year of diesel fuel (0.05% sulfur by weight) based on 1,500 hours per year of operation.
- 353 Generator fuel use of 10,616 gallons per year of diesel fuel (0.05% sulfur by weight) based on 500 hours per year of operation.

Total Annual Emissions for the Facility
 (used to calculate the annual license fee)

<u>Pollutant</u>	<u>TPY</u>
PM	50.8
PM ₁₀	50.8
SO ₂	47.9
NO _x	507.4
CO	359.8
VOC	179.1

*Note: The above calculated tons are slightly higher than in previous licenses due to the inclusion of the fuel oil burned in the boilers as well as the fuel burned in the diesel engines.

III. AIR QUALITY ANALYSIS

There have been no modifications to the facility, therefore the existing analysis performed for Worcester Energy’s 1988 Air Emission License A-216-72-C-R, which demonstrated compliance with MAAQS and increments, is sufficient for this initial Part 70 license.

ORDER

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

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

The Department hereby grants the Part 70 License A-216-70-A-I pursuant to MEDEP Chapter 140 and the preconstruction permitting requirements of MEDEP Chapter 115 and subject to the standards and special conditions below.

All federally enforceable and State-only enforceable conditions in existing air licenses previously issued to Worcester pursuant to the Department's preconstruction permitting requirements in Chapters 108 or 115 have been incorporated into this Part 70 license, except for such conditions that MEDEP has determined are obsolete, extraneous or otherwise environmentally insignificant, as explained in the findings of fact accompanying this permit. As such the conditions in this license supercede all previously issued air license conditions.

Federally enforceable conditions in this Part 70 license must be changed pursuant to the applicable requirements in Chapter 115 for making such changes and pursuant to the applicable requirements in Chapter 140.

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

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;
- (2) The Part 70 license does not convey any property rights of any sort, or any exclusive privilege;
- (3) All terms and conditions are enforceable by EPA and citizens under the CAA unless specifically designated as state enforceable.
- (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;
- (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.
- (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 effect 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 the application dated September 1995.

SOURCE	CITATION	DESCRIPTION	BASIS FOR DETERMINATION
Boiler 1, 2, and 3	40 CFR Part 60.44b(c)	There is no NSPS NO _x limit if the affected facility has an annual capacity factor less than 10% for oil firing in combination with firing wood.	Boiler 1 has an annual capacity factor less than 10% for oil firing.

- (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 3 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 Chapter 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.

- (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.

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 (Title 38 MRSA §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;
- (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;

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- (4) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 MRSA §353.
- (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;

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- (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;
- (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.
- (8) In accordance with the Department's air emission compliance test protocol and 40 CFR 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:
 - (i) 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;
 - (ii) to demonstrate compliance with the applicable emission standards; or
 - (iii) 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 CFR 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.
- (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 CFR 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.

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- (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 in emission standards 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 MRSA § 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.
- (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.
- (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.
- (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;

Special Conditions

- (14) Boiler 1, 2 and 3
- A. Boiler 1, Boiler 2 and Boiler 3 steam production shall be limited to 84,000 #/hr (each), based on a 24 hour average. Worcester Energy shall monitor and record steam flow rate and steam temperature continuously for each boiler. Note, "continuously" is defined as 2 points in a one hour period.
- Each parameter monitor must record accurate and reliable data. If the parameter monitor is recording accurate and reliable data less than 98% of the source-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.

[MEDEP Chapter 140, BPT]

B. The two 33.0 MMBtu/hr auxiliary oil-fired burners may be utilized for startup in each boiler (Boiler 1, 2 and 3). The auxiliary burners shall fire #2 fuel oil with a fuel sulfur content not to exceed 0.05% by weight. Worcester Energy shall not fire more than 847,800 gallons of oil (#1 and #2 fuel combined) in boilers based on a 12 month rolling total (<10% capacity factor). Reference 40 CFR Parts 60.42b(d) and 60.44b(c)).

[MEDEP Chapter 140, BPT]

C. Emissions from each boiler (Boiler 1, 2 and 3) shall not exceed the following limits when firing wood and oil:

Pollutant	lb/MMBtu	Origin and Authority
PM	0.027	MEDEP Chapter 140, BPT
PM ₁₀	0.027	MEDEP Chapter 140, BPT
NO _x	0.26	MEDEP Chapter 140, BPT
CO	0.192	MEDEP Chapter 140, BPT

CO: The 0.192 lb/MMBtu limit is based on a 24 hour block average basis via CEM. Worcester Energy shall maintain the CO CEM in accordance with Chapter 117. A 24 hour block average basis shall be defined as midnight to midnight. The CEM shall meet the monitoring requirements of 40 CFR Part 60.13 as well as 40 CFR Part 60, Appendices B and F.

D. Lb/hr emissions from each boiler (Boiler 1, 2 and 3) shall not exceed the following limits:

Pollutant	lb/hour
PM	3.7
PM ₁₀	3.7
SO ₂	3.4
NO _x	35.2
CO	26.0
VOC	13.6

PM, SO₂, NO_x and VOC: Lb/hr limits are on a one (1) hour average and can be demonstrated upon request by a stack test in accordance with this license.

CO lb/hr limit is based on a 24 hour block average basis and can be demonstrated upon request by a stack test in accordance with this license.

A 24 hour block average basis shall be defined as midnight to midnight.

[MEDEP Chapter 140, BPT]

- E. Worcester Energy shall, calibrate, maintain, and operate a continuous emission monitoring system for O₂. The monitoring system shall comply with Chapter 117 and 40 CFR Part 60, Appendix B, Performance Specification 3.
[MEDEP Chapter 140, BPT]
- F. Emissions from Boiler 1, 2 and 3 shall vent to Stack 1, 2 and 3, respectively, each shall be at least 185 feet AGL. No building taller than 110 feet AGL shall be constructed within 550 feet of the nearest boiler stack without the prior approval of the Department.
[MEDEP Chapter 140, BPT]
- G. Particulate matter (PM, PM₁₀) emissions from Boiler #1, #2 and #3 shall be controlled by the operation and maintenance of an electrostatic precipitator (ESP).

All three ESP fields for each operating boiler shall be operating during normal plant operating conditions. Data for the following points in the ESP shall be recorded once per shift during operation:

- 1) Primary and secondary voltages on each field
- 2) Primary and secondary current on each field

[MEDEP Chapter 140, BPT]

Upon written notification to the Department, and in accordance with the Bureau of Air Quality's Air Emission Compliance Test Protocol, Worcester Energy may perform additional particulate emission testing to demonstrate compliance with alternative operating scenarios, but under no circumstances shall Worcester Energy be relieved of its obligation to meet its licensed emission limits.

[MEDEP Chapter 140, BPT]

- H. Worcester Energy shall operate Boilers 1, 2 and 3 such that the opacity from each boiler does not exceed 20% over a six minute average except for one six minute period per hour of not more than 27%, subject to the provisions of Title 38 MRSA §349.
[MEDEP Chapter 140, BPT]

- I. Compliance with the opacity limit shall be demonstrated by means of a continuous opacity monitoring system (COM). The COM shall be installed and certified on the breaching of the ESP to the stack or in the stack. Worcester Energy shall maintain the COM in accordance with Chapter 117. [MEDEP Chapter 140, BPT]
- J. Boilers 1, 2 and 3 are subject to 40 CFR Part 60 Subparts A and Db and Worcester Energy shall comply with the notification and record keeping requirements of 40 CFR Part 60.7.
- 40 CFR Part 60 Subpart Db requires maintaining records of the amount of fuels combusted each day and calculation of annual capacity factor for each calendar quarter. This requirement was directed toward multifuel boilers to determine the annual capacity firing fossil fuel. EPA Region I determined this requirement is not meant to apply to 100% wood fired systems. However, Worcester Energy will be required to maintain monthly fuel use records and determine an annual capacity factor on a 12 month rolling average basis with the new annual capacity calculated at the end of each month and submitted annually
[MEDEP Chapter 140, BPT]
- K. Ash from Boiler 1, 2 and 3 grate, mud-drum, and flyash shall be disposed of in accordance with the Bureau of Remediation and Waste Management (BRWM). Ash shall be sufficiently conditioned with water or transported in covered containers so as to prevent fugitive emissions.
[MEDEP Chapter 140, BPT] **Enforceable by State Only**
- L. Should wind action or handling of reclamation of wood chips result in visible emissions in excess of 5% opacity, the chips shall be controlled to eliminate visible emissions in excess of 5% opacity on a six (6) minute average.
[MEDEP Chapter 140, BPT] **Enforceable by State Only**
- M. Worcester shall notify the regional Air Bureau inspector and Air Bureau Licensing section of any fuel pile fires by the next business day.
[MEDEP Chapter 140, BPT] **Enforceable by State Only**
- (15) A log for Boiler 1, 2, 3, Blackstart Diesel and the 353 Generator shall be maintained showing preventative maintenance actions being performed.
[MEDEP Chapter 140, BPT] **Enforceable by State Only**

- (16) Peat Bagging System
 Visible emissions from the peat bagging system shall not exceed an opacity of 20% on a 6 minute block average basis, except for no more than 1 six minute block average in a 1 hour period.
 [MEDEP Chapter 140, BPT] **Enforceable by State Only**
- (17) General Process Sources
 All wood conveyors and transfer points shall be covered or enclosed. Visible emissions from any general process source (including chippers) shall not exceed an opacity of 20% on a 6 minute block average basis, except for no more than 1 six minute block average in a 1 hour period.
 [MEDEP Chapter 140, BPT] **Enforceable by State Only**
- (18) Fugitive Emissions
 Potential sources of fugitive PM emissions, including material stockpiles and unpaved roadways, shall be controlled by wetting with water, with calcium chloride, or other methods as approved by the Bureau of Air Quality to prevent visible emissions in excess of 20% opacity, based on a 3 minute block average.
 [MEDEP Chapter 140, BPT] **Enforceable by State Only**
- (19) Miscellaneous Emission Units

Emission Unit	Origin and Authority	Requirement Summary
Blackstart Generator	Chapter 101, Section 2(A), Chapter 140, BPT	Visible emissions shall not exceed an opacity of 30 percent on a six (6) minute block average basis, except for no more than two (2) six (6) minute block averages in a 3-hour period
353 Generator	Chapter 101, Section 2(A), Chapter 140, BPT	Visible emissions shall not exceed an opacity of 30 percent on a six (6) minute block average basis, except for no more than two (2) six (6) minute block averages in a 3-hour period

- (20) The Blackstart Generator shall be limited to 1,500 hours per year of operation (106,087 gallons of fuel), firing 0.05% sulfur (documented through supplier fuel records) diesel fuel, based on a 12 month rolling total. Hours of operation and fuel use records for the generator shall be kept through purchase receipts indicating gallons and percent sulfur by weight.

A log documenting the dates, times and reason of operation for the generator shall be kept.

[MEDEP Chapter 140, BPT]

- (21) The 353 Generator shall be limited to 500 hours per year of operation (10,616 gallons of fuel), firing 0.05% sulfur (documented through supplier fuel records) diesel fuel, based on a 12 month rolling total. Hours of operation and fuel use records for the emergency diesel fire pump shall be kept through purchase receipts indicating gallons and percent sulfur by weight.

A log documenting the dates, times and reason of operation for the fire pump shall be kept.

[MEDEP Chapter 140, BPT]

- (22) **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 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioning units in Subpart B. An example of such units include refrigerators and any size air conditioner that contain CFCs.

[40 CFR, Part 82, Subpart F]

- (23) **Stack Testing** [MEDEP Chapter 140, BPT]

A. All stack testing programs shall comply with all of the requirements of Condition 24(D), the MEDEP Compliance Test Protocol and with 40 CFR Part 60, as appropriate.

B. Worcester Energy shall conduct particulate matter (PM) testing on each boiler (Boiler 1, 2, and 3), and demonstrate compliance with emission standards by **December 31, 2003**. A PM stack test shall be performed on each boiler (Boiler 1, 2, and 3) by **December 31** of every other year (i.e. 2005, 2007, etc.) if the units have been run for more than 6,000 hours since the last PM stack test was performed.

C. Worcester Energy shall conduct a one-time VOC test during the first particulate matter stack test on either Boiler 1, Boiler 2 or Boiler 3. Data from this test will be utilized to determine if a more stringent VOC emission rate is appropriate.

Enforceable by State Only

- (24) **CEMS, COMS, and Parameter Monitors**
The CEMS, COMS, and parameter monitors required by this license shall be the primary means of demonstrating compliance with emission standards set by this Order, statute, state or federal regulation, as applicable. Worcester Energy shall comply with the following:

A. Performance Specifications [MEDEP Chapter 117]

All CEMS and COMS shall meet the sampling and performance criteria specified in 40 CFR Part 51 Appendix P, and shall be operated in accordance with 40 CFR Part 60 Appendix F and Chapter 117 of the Departments regulations.

1. If the continuous emission monitoring system for the gaseous emissions is recording accurate and reliable data less than 90% of the source-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 CEMS 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 of unavoidable malfunctions.
2. If the continuous opacity monitoring system is recording accurate and reliable data less than 95% of the source-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 continuous emission monitoring system was not recording accurate and reliable data during that quarter unless the licensee can demonstrate to the satisfaction so 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 of unavoidable malfunctions.
3. Conduct Relative Accuracy Testing (RATA) and/or Performance Audits in accordance with Chapter 117 of the Department's regulations unless the unit has not had 168 unit operating hours, as defined in Part 72, in a quarter then that quarter shall be excluded in determining the deadline for the next RATA. If the RATA has not been completed by the end of the eighth calendar quarter since the quarter of the last RATA, then the RATA must be completed within a 720 unit operating hour grace period following the end of the eighth successive elapsed calendar quarter, or the data from the CEMS will become invalid.

Worcester Energy shall perform a cylinder gas audit (CGA) in accordance with 40 CFR Part 60, Appendix F if Boiler 1, 2 and/or 3 were run during the quarter. CGA's may be conducted at any load. Upon request of Worcester, DEP may waive the requirement in Chapter 117 that notice be provided 10 days in advance of a CGA and the requirement in Chapter 117 and 40 CFR Part 60, Appendix F that CGA's must be conducted no less than 60 days apart.

4. Develop and maintain an updated quality assurance plan for all CEMS and COMS in accordance with 40 CFR Part 60 Appendix F and Chapter 117 of the Department's regulations.

B. Recordkeeping [MEDEP Chapters 117 and 140, BPT]

For all of the continuous emission monitoring (CEMS), continuous opacity monitor (COM), equipment parameter monitoring and recording, required by this license, the licensee shall maintain records of the most current six year period and the records shall include:

1. Documentation which shows monitor operational status during all source operating time, including specifics for calibration and audits; and
2. A complete data set of all monitored parameters as specified in this license. All parameter records shall be made available to the Bureau of Air Quality upon request.
3. For all CEMS and COM, the records shall include:
 - a. Documentation that all CEMS and COM are continuously accurate, reliable and operated in accordance with Chapter 117, 40 CFR Part 51, Appendix P, and 40 CFR Part 60, Appendices B and F;
 - b. Records of all measurements, performance evaluations, calibration checks, and maintenance or adjustments for each CEMS and COMS as required by 40 CFR Part 51 Appendix P;
 - c. Upon the written request by the Department a report or other data indicative of compliance with the applicable emission standard for those periods when the CEMS or COMS were not in operation or produced invalid data. Methods allowed by 40 CFR Part 75 may be used to demonstrate compliance with applicable emission standards. Evidence indicating normal operations shall constitute such reports or other data indicative of compliance with applicable emission standards. In the event the Bureau of Air Quality does not concur with the licensee's compliance determination, the licensee shall, upon the Bureau of Air Quality's request, provide additional data, and shall have the burden of demonstrating that the data is indicative of compliance with the applicable standard; and
 - d. A 24-hour block average basis shall be calculated as the arithmetic average of not more than 24 – one hour block periods. Only one 24-hour block average shall be calculated for one day, beginning at midnight. A valid 24-hour block average must contain at least 12 hours during which operation occurred. Hours in which no operation occurs shall not be included in the 24-hr block average calculation.

C. 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 parameter monitors, Continuous Emission Monitoring Systems (CEMS) or Continuous Opacity Monitoring Systems (COMS) required by this license:

1. All control equipment downtimes and malfunctions;
2. All CEMS or COMS downtimes and malfunctions;
3. All parameter monitor downtimes and malfunctions;
4. All excess events of emission and operational limitations set by this Order, Statute, state or federal regulations, as appropriate. The following information shall be reported for each excess event;
 - a. Standard exceeded;
 - b. Date, time, and duration of excess event;
 - c. Maximum and average values of the excess event, reported in the units of the applicable standard, and copies of pertinent strip charts and printouts when requested;
 - d. A description of what caused the excess event;
 - e. The strategy employed to minimize the excess event; and
 - f. The strategy employed to prevent reoccurrence.
5. A report certifying there were no excess emissions, if that is the case.
[MEDEP Chapter 117]

(25) **Semiannual Reporting** [MEDEP Chapter 140]

The licensee shall submit semiannual reports every six months to the Bureau of Air Quality. The initial semiannual report is **January 30, 2003**, with subsequent semiannual reports due every July 30th and January 30th of each year.

- A. Each semiannual report shall include a summary of the periodic monitoring required by this license. The periodic monitoring required by this license is as follows:
1. The rolling 12-month total of fuel oil fired into each boiler (Boiler 1, 2 and 3).
 2. Summary page of the results of stack testing for PM, PM₁₀, SO₂, NO_x, CO and VOC for each boiler when performed.
 3. A statement indicating the Primary and Secondary ESP voltages for each boiler were recorded and are available to the Department upon request and note which days were not recorded.

4. A statement indicating the daily Primary and Secondary ESP currents for each boiler were recorded and are available to the Department upon request and note which days were not recorded.
 5. Monthly total of each fuel burned in each boiler (Boiler 1, 2 and 3) for each day (biomass and fuel oil).
 6. A statement indicating the maintenance log for Boiler 1, 2 and 3 showing preventative maintenance actions performed in the past six months is available to the Department upon request.
 7. Summary of the quantity of fuel burned in the Blackstart Generator and 353 Generator (diesel fuel) over the past six months.
 8. Diesel fuel oil sulfur content of the diesel fuel burned over the past six months.
- B. Each semiannual report shall include the annual capacity factor of Boilers 1, 2 and 3 for each fuel.
- C. 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) **Compliance**

Compliance with all license limits and standards shall be subject to the provisions of 38 M.R.S.A. § 349(9).
[MEDEP Chapter 140]

(27) **Annual Compliance Certification**

Worcester Energy shall submit an annual compliance certification to the Department in accordance with Standard Condition (13) of this license. The initial annual compliance certification is due **January 30, 2003**, with subsequent annual compliance certifications due January 30th for the previous year.
[MEDEP Chapter 140]

(28) **Annual Emission Statement**

In accordance with MEDEP Chapter 137, the licensee shall annually report to the Department, by **September 1**, the information necessary to accurately update the State's emission inventory by means of:

- 1) A computer program and accompanying instructions supplied by the Department;
or

- 2) A written emission statement containing the information required in MEDEP Chapter 137.

Reports and questions should be directed to:

Attn: Criteria Emission Inventory Coordinator
 Maine DEP
 Bureau of Air Quality
 17 State House Station
 Augusta, ME 04333-0017

Phone: (207) 287-2437

- (29) The license is subject to the State and Federal regulations listed below:

<u>Origin and Authority</u>	<u>Requirement Summary</u>	<u>Enforceability</u>
Chapter 102	Open Burning	-
Chapter 109	Emergency Episode Regulation	-
Chapter 110	Ambient Air Quality Standard	-
Chapter 116	Prohibited Dispersion Techniques	-
38 M.R.S.A. Section 3 §585-B, sub-§5	Reduce Mercury Use and Emissions	Enforceable by State-only

- (30) **Certification by a Responsible Official**

All reports (including quarterly reports, semiannual reports, and annual compliance certifications) required by this license to be submitted to the Bureau of Air Quality must be signed by a responsible official.
 [MEDEP Chapter 140]

- (31) Worcester Energy shall pay the annual air emission license fee within 30 days of **August 30th** of each year. Pursuant to 38 MRSA §353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for revocation of the license under 38 MRSA §341-D, subsection 3.

Worcester Energy Company, Inc.) **DEPARTMENTAL**
Washington County) **FINDINGS OF FACT AND ORDER**
Deblois, Maine) **PART 70 AIR EMISSION LICENSE**
A-216-70-A-I 24

(32) This term of this license shall be five (5) years from the signature date below.

DONE AND DATED IN AUGUSTA, MAINE THIS _____ DAY OF _____ 2002.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
MARTHA G. KIRKPATRICK, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application March 17, 1998

Date of application acceptance March 19, 1998

Date filed with Board of Environmental Protection _____

This Order prepared by Mark E. Roberts, Bureau of Air Quality