



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PAUL R. LEPAGE
GOVERNOR

PATRICIA W. AHO
COMMISSIONER

AC Electric)	Departmental
Penobscot County)	Findings of Fact and Order
Bangor, Maine)	Air Emission License
A-919-71-D-R/M)	Renewal & Minor Revision

After review of the air emissions 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

AC Electric (AC) of Bangor, Maine was issued Air Emission License #A-919-71-A-N on August 12, 2005, permitting the operation of emission sources associated with their electric equipment refurbishing facility. Two modifications were made, #A-919-71-B-M and #A-919-71-C-M, to run concurrently with the original license. AC has applied to renew their license, and this will combine the initial license and the two modifications. This facility is located at 40 Target Industrial Circle, Bangor, Maine 04401-5716.

B. Emission Equipment

AC is authorized to operate the following equipment:

Fuel Burning Equipment:

	Incinerator #1	Incinerator #2
Incinerator Type	V	V
No. Of Chambers	2	2
Type of Waste	6	6
Max. Combustion Rate	60 lb/hr	30 lb/hr
Aux. Fuel Input:		
Primary Chamber (MMBtu/hr)	0.8	0.8
Secondary Chamber (MMBtu/hr)	0.8	0.8
Aux. Fuel	Natural Gas	Natural Gas
Control Device	Afterburner	Afterburner

AUGUSTA
17 STATE HOUSE STATION
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PORTLAND, MAINE 04103
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The following fuel burning equipment is listed for inventory purposes, as they are rated at less than 1.0 MMBtu/hr.

Emission Unit	Max. Firing Rate MMBtu/hr	Fuel
Karcher Pressure washer	0.380	Natural Gas
Heater #1	0.25	Natural Gas
Heaters #2 and #3	0.1	Natural Gas
Heater #4	0.32	Natural Gas
Heater #5	0.116	Natural Gas
Parts Washer 1	0.78	Natural Gas

AC also operates the following process equipment:

Process Equipment:

Process Equipment	Pollutants Generated	Control Equipment
Auto Resin Dip (integral w/bake oven #4)	None	None
Vacuum Pressure Impregnation System (VPI)	None	None
Bake Oven #1	None	None
Paint Spray Booth	VOC and PM	Dry Filters
Bake Oven #2	None	None
Bead Blast Cabinet	PM	Dust Collectors
Stripping Booth	PM	None

C. Application Classification

The application for AC includes an increase in natural gas usage, and the installation of a new Bake Oven. Therefore, the license is considered to be a renewal and minor revision and has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 CMR 115 (as amended).

II. BEST PRACTICAL TREATMENT (BPT)

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

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(BPT), as defined in *Definitions Regulation*, 06-096 CMR 100 (as amended). Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

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

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

B. Incinerators #1 and #2

Incinerators #1 and #2 are used to burn off the old resin on the copper wire coils removed from electric motors. The recovered copper is sold to be recycled and the coil is rewound with new copper, recoated with resin, and placed into the rebuilt electric motor.

To meet the requirements of BPT for the control of PM emissions from Incinerators #1 and #2, AC shall operate each incinerator as follows:

1. The afterburner shall be operated at all times during incinerator operation.
2. A written log of incinerator operation shall be kept.
3. MEDEP Chapter 104 contains an applicable PM limit, however the BPT limit of 0.10 gr/dscf is more stringent and shall be used.
4. SO₂, NO_x, CO and VOC emissions are calculated from AP-42 data dated 7/98 for the combustion of Natural Gas.
5. Visible emissions from Incinerators #1 and #2 shall each not exceed 10% opacity on a six minute block average.
6. Incinerators #1 and #2 shall use natural gas as an auxiliary fuel.

C. Auto Resin Dip, VPI and Bake Oven #1

Once the motor components have been rewound with new copper, they are dipped in a resin and placed in an oven to cure the resin. The resin is either applied in the Auto Resin Dip Tank or the Vacuum Pressure Impregnation System (VPI). The resin used in both machines is water-based and contains no VOCs and the oven is powered by electricity so there are no recordable emissions from this process. The Auto Resin Dip, VPI and Bake Oven #1 are therefore considered insignificant activities and are listed for inventory purposes only.

D. Paint Booth

AC paints motor housings upon completion of the motor assembly for a new-looking appearance. The paint booth has an exhaust fan that blows through a dry filter to remove particulates and then vents outside. VOC emissions are calculated using the MSDS VOC content information from the paints and thinners. Xylene is the principal VOC component of the paints and thinners used by AC. Regulation 06-096 CMR137 (as amended) reporting threshold for Xylene is 1 ton/yr. To remain below this threshold and avoid 06-096 CMR137 (as amended) reporting, AC has accepted a VOC limit of 0.9 ton of VOC/yr from the paint booth

BPT for the Paint booth shall be as follows:

1. A BPT emission limit of 0.9 tons VOC per calendar year shall be used. Records of paint and thinner usage shall be kept for compliance purpose.
2. Visible emissions from the Paint Booth stack shall not exceed 10% opacity on a six minute block average.
3. A written log documenting all maintenance performed on the paint booth and dry filters shall be kept.

E. Bead Blasting Units

AC uses one bead blasting cabinet and one bead blasting booth to clean some of their parts and materials. The residue from these units is controlled by dust collectors and then vented to the outside.

BPT for the Bead Blasting Units shall be as follows:

1. A written log of all maintenance done on the bead blasting units and dust collectors shall be kept.
2. Visible emissions from each bead blasting unit stack shall not exceed 10% opacity on a six minute average.

F. Bake Oven #2

AC uses the electric powered Bake Oven #2 to completely dry the parts and materials that are cleaned using the pressure washer, and to cure resins after processing. Only water vapor is emitted from bake oven #2 and, as such, it is considered an insignificant activity.

G. Bake Oven #4

AC uses the electric powered Bake Oven #4 to completely dry the parts and materials that are cleaned using the pressure washer, and to cure resins after processing. Only water vapor is emitted from bake oven #4 and, as such, it is considered an insignificant activity.

H. PW #1

The PW #1 parts washer is a natural gas fired unit rated at 0.78 MMBtu/hr, which utilizes non-VOC cleaning solvents. PW #1 does not meet the definitions in, and is therefore not subject to, the requirements of *Solvent Cleaners*, 06-096 CMR 130 (last amended June 28, 2004). Due to its small heat input capacity and use of non-VOC cleaning solvent, no emission controls are required for PW #1.

BPT for PW #1 shall be the following:

1. Use of non-VOC cleaning solvent.
2. *Low Sulfur Fuel*, 06-096 CMR 106 as amended) regulates fuel sulfur content. However, the use of natural gas is more stringent and shall be considered BPT.
3. A PM emission limit of 0.05 lb/MMBtu shall be considered BPT. The PM₁₀ limits are derived from the PM limits.
4. NO_x, CO, and VOC emission limits are based upon AP-42 data dated 7/98 for the combustion of natural gas.
5. Visible emissions from PW #1 shall not exceed 10% opacity on a six (6) minute block average.

I. Annual Emissions

1. AC was limited to 2.1 MMscf (21,425 therms) of natural gas on a calendar year basis in their prior license. Due to their expansion, they have requested an increase fuel limit of 3.0 MMscf (30,000 therms) of natural gas on a calendar year basis
2. Annual emissions shall not exceed the following:

Total Licensed Annual Emissions
Tons/Year
(used to calculate the annual license fee)

Emission Unit	PM	PM ₁₀	SO ₂	NO _x	CO	VOC
Incinerator #1, Incinerator #2	2.40	2.40	Neg.	0.15	0.13	0.01
Paint Booth	-	-	-	-	-	0.90
Total	2.40	2.40	Neg.	0.15	0.13	0.91

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III. AMBIENT AIR QUALITY ANALYSIS

According to 06-096 CMR115, the level of air quality analyses required for a minor new source shall be determined on a case-by case basis. Based on the information available in the file, and the similarity to existing sources, Maine Ambient Air Quality Standards (MAAQS) will not be violated by this source.

ORDER

The Department hereby grants Air Emission License A-919-71-D-R/M subject to the following conditions:

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 (38 M.R.S.A. §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 115. [06-096 CMR 115]
- (3) 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 CMR 115]
- (4) 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 CMR 115]

- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. §353-A. [06-096 CMR 115]
- (6) The license does not convey any property rights of any sort, or any exclusive privilege. [06-096 CMR 115]
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 CMR 115]
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [06-096 CMR 115]
- (9) The licensee shall comply with all terms and conditions of the air emission license. 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 a renewal of a license or amendment shall not stay any condition of the license. [06-096 CMR 115]
- (10) 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 CMR 115]
- (11) 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 to demonstrate compliance with the applicable emission standards 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; or
 - 2. 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. [06-096 CMR 115]

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- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate 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. [06-096 CMR 115]
- (13) Notwithstanding any other provisions 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 CMR 115]
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation. [06-096 CMR 115]
- (15) Upon written request from 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 a 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 CMR 115]

SPECIFIC CONDITIONS

(16) Incinerators #1 and #2 [06-096CMR 115, 104, 101, BACT]

- A. AC shall operate the incinerators such that combustion gases pass through the afterburner which shall be operated at all times the incinerator is in use. To ensure an efficient burn and visible emissions, the afterburner chamber shall be preheated, as specified by the manufacturer, until the temperature measures a minimum of 1200°F prior to commencing the burn cycle
- B. A log shall be maintained recording the weight of waste charged, preheating time, charging time, afterburner temperature directly after charging and every 60 minutes after startup until, and including, final shutdown time, and time of final shutdown. For facilities operating a chart recorder, the start time, date, and weight of waste charged may be logged on the chart. [06-096 CMR 115, BPT]
- C. AC shall be limited to firing 3.0 MMscf of natural gas on a calendar year basis. Records documenting delivered quantities shall be kept for compliance purposes.
- D. Particulate emissions from incinerators #1 and #2 shall not exceed 0.1 gr/dscf
- E. Visible emissions from incinerators #1 and #2 shall each not exceed 10% opacity on a six-minute block average basis.
- F. Ash from incinerators #1 and #2 shall be disposed of according to the Bureau of Remediation and Waste Management.
- G. Incinerators #1 and #2 shall be limited to the following emissions:

		PM	PM10	SO2	NOX	CO	VOC
Oven #1	gr/dscf	0.10	-	-	-	-	-
	lb/hr	0.09	0.09	Neg.	0.16	0.13	0.01
Oven #2	gr/dscf	0.10	-	-	-	-	-
	lb/hr	0.09	0.09	Neg.	0.16	0.13	0.01

(17) Paint Booth [06-096CMR 115 and 101, BACT]

- 1. AC shall not exceed 0.9 tons VOC emitted from the paint booth per calendar year. Records of paint and thinner usage, including gallons of paint used and VOC content, shall be kept for compliance purposes. The exhaust from the paint booth shall be exhausted through fabric filters. The fabric filters from the paint booth shall be disposed of in accordance with Bureau of Remediation and Waste Management standards. [06-096 CMR 115, BPT]
- 2. Visible emissions from the paint booth stack shall not exceed 10% opacity on a six minute block average.
- 3. A written log documenting all maintenance performed on the paint booth and dry filters shall be kept.

(18) Bead Blasting Units [06-096CMR 115 and 101, BACT]

1. A written log of all maintenance done on the bead blasting units and dust collectors shall be kept.
2. Visible emissions from each bead blasting unit stack shall not exceed 10% opacity on a six minute average.

(19) PW #1

- A. AC shall keep records of the amount of solvent added to PW #1, which is fired by natural gas. [06-096 CMR 115, BACT]
- B. PW #1 shall not exceed the following emissions: [06-096 CMR 115, BACT]

Emission Unit		PM	PM ₁₀	SO ₂	NO _x	CO	VOC
PW #1	lb/hr	0.04	0.04	Neg.	0.08	0.06	0.01

- C. Visible Emissions from PW #1 shall not exceed an opacity of 10 percent on a six (6) minute block average basis. [06-096 CMR 101]

(20) Stripping Booth

1. The Stripping Booth shall exhaust through a fabric filter. The fabric filters from the paint booth shall be disposed of in accordance with Bureau of Remediation and Waste Management standards. [06-096 CMR 115, BPT]
2. A written log of all maintenance (including filter changes) performed on the stripping booth shall be kept. [MEDEP Chapter 115, BACT]
3. Visible emissions from the stripping booth vent shall not exceed 10% opacity on a six minute block average. [MEDEP Chapter 101]

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- (21) AC shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard (Title 38 MRSA §605).

DONE AND DATED IN AUGUSTA, MAINE THIS 28th DAY OF August 2012.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Melanie [Signature] for
PATRICIA W. AHO, COMMISSIONER

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

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: May 10, 2010

Date of application acceptance: June 3, 2010

Date filed with the Board of Environmental Protection: _____

This Order prepared by Robert Hartley, Bureau of Air Quality.



