

AC Electric)	Departmental
Penobscot County)	Findings of Fact and Order
Bangor, Maine)	Air Emission License
A-919-71-A-N)	After the Fact

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 has applied for an Air Emission License permitting the operation of emission sources associated with their electric equipment refurbishing facility.

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

- AC operates a Karcher pressure washer and a roof furnace all of which are fueled by natural gas. These units are each less than 1.0 MMBtu/hr and are noted for inventory purposes only.

Process Equipment:

Process Equipment	Pollutants Generated	Control Equipment
Auto Resin Dip	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
1 Bead Blast Cabinet	PM	Dust Collectors

C. Application Classification

AC is classified as an existing source that is applying for its first air emission license, after the fact. The Department has determined the facility is a minor source and the application has been processed through Chapter 115 of the Department’s regulations.

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 (BPT), as defined in Chapter 100 of the Department regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in Chapter 100 of the Department’s regulations. BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

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 BACT 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 BACT 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 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 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. The MEDEP Chapter 137 reporting threshold for Xylene is 1 ton/yr. To remain below this threshold and avoid Chapter 137 reporting, AC has accepted a VOC limit of 0.9 ton of VOC/yr from the paint booth

BACT for the Paint booth shall be as follows:

1. A BACT 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.

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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.

BACT 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. Only water vapor is emitted from bake oven #2 and, as such, it is considered insignificant.

G. Annual Emissions

1. AC shall be limited to firing no more than 2.1 MMscf (21,425 therms) of natural gas on a 12 month rolling total.
2. Annual emissions shall not exceed the following:

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

Emission Unit	PM	PM₁₀	SO₂	NO_x	CO	VOC
Incinerator #1, Incinerator #2	2.40	2.40	Neg.	0.11	0.09	0.01
Paint Booth	-	-	-	-	-	0.90
Total	2.40	2.40	Neg.	0.11	0.09	0.91

III. AMBIENT AIR QUALITY ANALYSIS

According to the Maine Regulations Chapter 115, 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-A-N 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 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 115. [MEDEP Chapter 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. [MEDEP Chapter 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. [MEDEP Chapter 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. [MEDEP Chapter 115]
- (6) The license does not convey any property rights of any sort, or any exclusive privilege. [MEDEP Chapter 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. [MEDEP Chapter 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. [MEDEP Chapter 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. [MEDEP Chapter 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. [MEDEP Chapter 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.
- [MEDEP Chapter 115]
- (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.

[MEDEP Chapter 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. [MEDEP Chapter 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. [MEDEP Chapter 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. [MEDEP Chapter 115]

SPECIFIC CONDITIONS

- (16) Incinerators #1 and #2 [MEDEP Chapter 115, Chapter 104, Chapter 101, BACT]
 - A. Each afterburner shall be operated at all times during incinerator operation.
 - B. A written log shall be kept documenting the operation of each incinerator.
 - C. AC shall be limited to firing 2.1 MMscf of natural gas on a 12 month rolling total. 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.

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- 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 [MEDEP Chapter 115, Chapter 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 shall be kept for compliance purposes.
- 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 [MEDEP Chapter 115, Chapter 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) 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).

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(20) Payment of Annual License Fee

AC shall pay the annual air emission license fee within 30 days of **August 31st** 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. [38 MRSA §353-A]

DONE AND DATED IN AUGUSTA, MAINE THIS _____ DAY OF _____ 2005.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
DAWN R. GALLAGHER, 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: 5/6/2005

Date of application acceptance: 5/9/2005

Date filed with the Board of Environmental Protection: _____

This Order prepared by Jonathan Voisine, Bureau of Air Quality.