



DEPARTMENT ORDER

**A.C. Electric Corp.
Penobscot County
Bangor, Maine
A-919-71-E-R**

**Departmental
Findings of Fact and Order
Air Emission License
Renewal**

FINDINGS OF FACT

After review of the air emission license renewal 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

A.C. Electric Corp. (ACE) has applied to renew their Air Emission License for the operation of emission sources associated with their electric equipment refurbishing facility.

The equipment addressed in this license is located at 40 Target Industrial Circle, Bangor, Maine.

B. Emission Equipment

The following equipment is addressed in this air emission license:

	Incinerator #1	Incinerator #2
Class Incinerator	V	V
No. of Chambers	2	2
Type of Waste	Type 6	Type 6
Max. Design Combustion Rate	70 lb/hr	30 lb/hr
Auxiliary Fuel Input:	Natural Gas	Natural Gas
Primary Chamber (MMBtu/hr)	0.8	0.8
Secondary Chamber (MMBtu/hr)	0.8	0.8
Emission Control	Afterburner	Afterburner
Manufacture Date	2003	1996

ACE has additional fuel burning equipment, including a pressure washer and infrared heaters, which are considered insignificant activities based on their size.

Process Equipment

Equipment	Pollutants Generated	Pollution Control Equipment
Paint Booths	PM, VOC	Filters
Bead Blast Cabinets/Booths	PM	Dust Collectors
Stripping Booth	PM	None
Parts Washers	VOC	None

ACE also operates an Auto Resin Dip Tank with integrated bake oven, two stand-alone bake ovens, and a Vacuum Pressure Impregnation System.

Once the motor components have been rewound with new copper, they are dipped in a resin either using the Auto Resin Dip Tank or the Vacuum Pressure Impregnation System. The Auto Resin Dip Tank process has an integrated bake oven (Bake Oven #4). Either Bake Oven #1 or #4 are used to cure the resin. The resin is water-based and contains no VOC. Both Bake Oven #1 and #4 are powered by electricity. There are no quantifiable emissions from this equipment. Therefore, the Auto Resin Dip Tank with Bake Oven #4, Vacuum Pressure Impregnation System, and Bake Oven #1 are considered insignificant activities and are mentioned for completeness purposes only.

Bake Oven #2 is used to completely dry parts and materials after cleaning. It is powered by electricity and produces no additional emissions beyond what is already accounted for by the parts washers. Therefore, Bake Oven #2 is considered an insignificant activity and mentioned for completeness purposes only.

C. 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 ACE does not include the licensing of increased emissions or the installation of new or modified equipment. Therefore, the license is considered to be a renewal of currently licensed emission units only and has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 Code of Maine Rules (C.M.R.) ch. 115.

ACE is licensed as follows:

- A natural minor source of air emissions; and
- An area source of hazardous air pollutants (HAP).

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 *Definitions Regulation*, 06-096 C.M.R. ch. 100. Separate control requirement categories exist for new and existing equipment.

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 motor.

Incinerator #1 is a ACE model 260 RT built in 2003. Both the primary and secondary chambers have 0.8 MMBtu/hr burners which fire natural gas.

Incinerator #2 is a ACE model 230 RKG built in 1996. Both the primary and secondary chambers have 0.8 MMBtu/hr burners which fire natural gas.

1. BPT Findings

The BPT emission limits for Incinerators #1 and #2 were based on the following:

PM/PM ₁₀	–	0.10 gr/dscf based on 06-096 C.M.R. ch. 115, BPT
SO ₂	–	0.6 lb/MMscf based on AP-42 Table 1.4-2 dated 7/98
NO _x	–	100 lb/MMscf based on AP-42 Table 1.4-1 dated 7/98
CO	–	84 lb/MMscf based on AP-42 Table 1.4-1 dated 7/98
VOC	–	5.5 lb/MMscf based on AP-42 Table 1.4-2 dated 7/98
Visible Emissions	–	06-096 C.M.R. ch. 115, BPT

The BPT emission limits for Incinerators #1 and #2 are the following:

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Incinerator #1	0.20	0.20	–	0.16	0.13	0.01
Incinerator #2	0.20	0.20	–	0.16	0.13	0.01

Visible emissions from Incinerators #1 and #2 shall each not exceed 10% opacity on a six-minute block average basis.

C. Paint Booths

ACE paints motor housings upon completion of the motor assembly for a new-looking appearance. ACE operates two paint booths for this purpose. The paint booths have an exhaust fan that blows through a filter to remove particulates and then vents outside. Continued use and maintenance of the filters is considered BPT for PM emissions from the paint booths. ACE shall keep a log of all maintenance performed on the paint booths including filter replacements.

VOC/HAP emissions from the painting operations are calculated using information from the Safety Data Sheets (SDS) for the paints and thinners. ACE shall maintain records of the amount of paint/thinner used, the VOC/HAP content of each, and the total VOC/HAP emissions from this operation on a calendar year basis. BPT for VOC/HAP from the painting operations is determined to be an annual emission limit of 1.0 ton/year based on a calendar year total.

Visible emissions from the paint booths shall each not exceed 20% opacity on a six minute block average basis.

D. Bead Blasting Cabinets/Booth

ACE uses one Bead Blasting Cabinet and one Bead Blasting Booth to clean parts and materials. The residue from these units is controlled by dust collectors and then vented to the outside. ACE shall keep a log of all maintenance performed on the Bead Blasting Cabinet and Bead Blasting Booth.

Visible emissions from the Bead Blasting Cabinet and the Bead Blasting Booth shall each not exceed 10% opacity on a six-minute block average basis.

E. Stripping Booth

The Stripping Booth is a hooded area with a fan that vents dust and other fine debris from the air cleaning of newly arrived equipment in preparation for refurbishment. The fan

exhausts directly to the outside with no control device and is therefore considered a general process source.

The Stripping Booth also contains a 0.78 MMBtu/hr pressure washer (PW #1) which uses natural gas to heat water. Due to its size, the pressure washer is not required to be included in this license as fuel-burning equipment.

PW#1 uses cleaners that contain no VOCs. Therefore, this equipment is not subject to *Solvent Cleaners*, 06-096 C.M.R. ch. 130.

F. General Process Emissions

Visible emissions from any general process source (including the Stripping Booth) shall not exceed 20% opacity on a six-minute block average basis.

G. Parts Washer

ACE currently operates two parts washers that use a solvent containing 30% VOC. These parts washers are subject to *Solvent Cleaners*, 06-096 C.M.R. ch. 130 and records shall be kept documenting compliance.

H. Annual Emissions

1. Total Annual Emissions

ACE shall be restricted to the following annual emissions, based on the following:

- Unlimited use of the incinerators;
- Limiting the painting operations to 1.0 tpy of VOC/HAP; and
- Limiting the parts washers to 0.5 tpy of VOC/HAP.

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

	PM	PM ₁₀	SO ₂	NO _x	CO	VOC/HAP
Incinerator #1	0.2	0.2	–	0.7	0.6	0.1
Incinerator #2	0.2	0.2	–	0.7	0.6	0.1
Paint Booths	–	–	–	–	–	1.0
Parts Washers	–	–	–	–	–	0.5
Total TPY	0.4	0.4	–	1.4	1.2	1.7

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 (CO₂e).

The quantity of CO₂e emissions from this facility is less than 100,000 tons per year, based on the following:

- 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.

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

III. AMBIENT AIR QUALITY ANALYSIS

The level of ambient air quality impact modeling required for a minor source is determined by the Department on a case-by case basis. In accordance with 06-096 C.M.R. ch. 115, an ambient air quality impact analysis is not required for a minor source if the total licensed annual emissions of any pollutant released do not exceed the following levels and there are no extenuating circumstances:

Pollutant	Tons/Year
PM ₁₀	25
SO ₂	50
NO _x	50
CO	250

The total licensed annual emissions for the facility are below the emission levels contained in the table above and there are no extenuating circumstances; therefore, an ambient air quality impact analysis is not required as part of this 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, and
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-919-71-E-R subject to the following conditions.

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 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. § 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 C.M.R. ch. 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 C.M.R. ch. 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 C.M.R. ch. 115]
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S. § 353-A. [06-096 C.M.R. ch. 115]

- (6) The license does not convey any property rights of any sort, or any exclusive privilege. [06-096 C.M.R. ch. 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 C.M.R. ch. 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 C.M.R. ch. 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 C.M.R. ch. 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 C.M.R. ch. 115]
- (11) 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 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 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. 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 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. 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 C.M.R. ch. 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 emissions 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 C.M.R. ch. 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 C.M.R. ch. 115]

SPECIFIC CONDITIONS

(16) Incinerators #1 and #2

- A. Incinerator #1 and #2 shall each operate the afterburner at all times during incinerator operation. [06-096 C.M.R. ch. 115, BPT]
- B. ACE shall keep a record of all incinerator operating times and any afterburner malfunctions and downtimes. [06-096 C.M.R. ch. 115, BPT]
- C. Emissions shall not exceed the following [06-096 C.M.R. ch. 115, BPT]:

Emission Unit	PM (lb/hr)	PM₁₀ (lb/hr)	SO₂ (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Incinerator #1	0.20	0.20	–	0.16	0.13	0.01
Incinerator #2	0.20	0.20	–	0.16	0.13	0.01

- D. Visible emissions from Incinerators #1 and #2 shall each not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BPT]

(17) Paint Booths

- A. ACE shall use particulate filters on the vents of the Paint Booths to control PM emissions. [06-096 C.M.R. ch. 115, BPT]
- B. Visible emissions from the Paint Booths shall each not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BPT]
- C. Emissions of VOC/HAP from the painting operations shall not exceed 1.0 ton/year on a calendar year basis. Compliance shall be demonstrated by records of the amount and VOC/HAP content of the paint and thinner used on a monthly and calendar year basis. [06-096 C.M.R. ch. 115, BPT]
- D. ACE shall keep a log of all maintenance performed on the Paint Booths including filter replacements. [06-096 C.M.R. ch. 115, BPT]

(18) Bead Blasting Cabinet/Booth

- A. ACE shall use dust collectors on the vents of the Bead Blasting Cabinet and Bead Blasting Booth to control PM emissions. [06-096 C.M.R. ch. 115, BPT]
- B. Visible emissions from the Bead Blasting Cabinet and Bead Blasting Booth shall each not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BPT]

C. ACE shall keep a record of all maintenance performed on the Bead Blasting Cabinet and Bead Blasting Booth. [06-096 C.M.R. ch. 115, BPT]

(19) **General Process Sources**

Visible emissions from any general process source (including the Stripping Booth) shall not exceed 20% opacity on a six-minute block average basis.
[06-096 C.M.R. ch. 115, BPT]

(20) **Parts Washers**

Parts washers at ACE are subject to *Solvent Cleaners*, 06-096 C.M.R. ch. 130.

A. ACE shall keep records of the amount of solvent added to each parts washer. [06-096 C.M.R. ch. 115, BPT]

B. The following are exempt from the requirements of 06-096 C.M.R. ch. 130 [06-096 C.M.R. ch. 130]:

1. Solvent cleaners using less than two liters (68 oz.) of cleaning solvent with a vapor pressure of 1.00 mmHg, or less, at 20° C (68° F);
2. Wipe cleaning; and,
3. Cold cleaning machines using solvents containing less than or equal to 5% VOC by weight.

C. The following standards apply to cold cleaning machines that are applicable sources under 06-096 C.M.R. ch. 130.

1. ACE shall attach a permanent conspicuous label to each unit summarizing the following operational standards [06-096 C.M.R. ch. 130]:

- a. Waste solvent shall be collected and stored in closed containers.
- b. Cleaned parts shall be drained of solvent directly back to the cold cleaning machine by tipping or rotating the part for at least 15 seconds or until dripping ceases, whichever is longer.
- c. Flushing of parts shall be performed with a solid solvent spray that is a solid fluid stream (not a fine, atomized or shower type spray) at a pressure that does not exceed 10 psig. Flushing shall be performed only within the freeboard area of the cold cleaning machine.
- d. The cold cleaning machine shall not be exposed to drafts greater than 40 meters per minute when the cover is open.
- e. Sponges, fabric, wood, leather, paper products and other absorbent materials shall not be cleaned in the parts washer.
- f. When a pump-agitated solvent bath is used, the agitator shall be operated to produce no observable splashing of the solvent against the tank walls or the parts being cleaned. Air agitated solvent baths may not be used.

- g. Spills during solvent transfer shall be cleaned immediately. Sorbent material used to clean spills shall then be immediately stored in covered containers.
 - h. Work area fans shall not blow across the opening of the parts washer unit.
 - i. The solvent level shall not exceed the fill line.
2. The remote reservoir cold cleaning machine shall be equipped with a perforated drain with a diameter of not more than six inches. [06-096 C.M.R. ch. 130]
- (21) ACE 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 (38 M.R.S. § 605).

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

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Paul Allen Robert Case for
PAUL MERCER, COMMISSIONER

The term of this license shall be ten (10) years from the signature date above.

[Note: If a renewal application, determined as complete by the Department, is submitted prior to expiration of this license, then pursuant to Title 5 M.R.S. § 10002, all terms and conditions of the license shall remain in effect until the Department takes final action on the license renewal application.]

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 7/5/17
Date of application acceptance: 7/7/17

Date filed with the Board of Environmental Protection:

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

Filed
SEP 01 2017
State of Maine
Board of Environmental Protection