



DEPARTMENT ORDER

Skowhegan Electric Motors, Inc.
Somerset County
Skowhegan, Maine
A-101-71-G-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

Skowhegan Electric Motors, Inc. (SEM) has applied to renew their Air Emission License for the operation of emission sources associated with their electric motor repair facility.

The equipment addressed in this license is located at 6 Alder Street, Skowhegan, Maine.

B. Emission Equipment

The following equipment is addressed in this air emission license:

Incinerator

Model	Pollution Control Products
Date of Manufacture	1981
Class Incinerator	V
No. of Chambers	2
Type of Waste	Type 6
Max. Design Feed Rate	100 lb/hr
Auxiliary Fuel Input:	
Primary Chamber (Btu/hr)	150,000
Secondary Chamber (Btu/hr)	150,000
Auxiliary Fuel	LPG*
Emission Control Device	Afterburner

LPG = liquefied petroleum gas

Process Equipment

<u>Equipment</u>	<u>Pollutant</u>	<u>Pollution Control Equipment</u>
Varnish Dipper	VOC	-
Electric Bake Oven	VOC	-
Safety-Kleen Parts Washer	VOC	-
Paint Booth	PM, VOC	-

SEM also operates a 93,000 Btu/hr furnace for heating purposes only. The furnace is considered an insignificant activity per 06-096 Code of Maine Rules (C.M.R.) ch. 115, Appendix B.

C. Application Classification

With the annual fuel limit on the Incinerator and the VOC limit for the Varnish Dipper and the Electric Bake Oven, the facility is licensed as follows:

- As a synthetic minor source of air emissions, because the licensed emissions are below the major source thresholds for criteria pollutants; and
- As an area source of hazardous air pollutants (HAP), because the licensed emissions are below the major source thresholds for 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 (as amended). 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. Incinerator

The Incinerator, formerly classified as a Class VII incinerator, is a class V incinerator as defined in 06-096 C.M.R. ch. 100 (as amended), designed to incinerate Type 6 waste. SEM uses the Incinerator to incinerate Type 6 waste, which is solid by-product waste such as rubber, plastics, contaminated wood waste, etc. as defined in

06-096 C.M.R. ch. 100. The Incinerator is used to burn off wire coatings to reclaim copper wiring from electric motors. The Incinerator fires LPG as an auxiliary fuel.

The pounds per hour limits for the Incinerator as specified in the BACT/BPT Findings section below are limits on the quantity (in pounds) of material to be incinerated, and not the pounds of material *put into* each unit. Large parts weighing much more than the lb/hr limit are put into the Incinerator. The limits apply only to the material being burned off and *not* to the pieces of equipment being put into (and later removed from) the Incinerator off from which excess material is incinerated. Compliance with the limits shall be documented through records of the weights of materials put into the Incinerator and the weights of materials removed from the Incinerator. The difference (weight in minus weight out) shall be considered the quantity of material incinerated for each use of the Incinerator.

1. BPT Findings

The BPT findings for the Incinerator are as follows:

- a. The Incinerator shall not operate without the afterburner being in full operation.
- b. A log of Incinerator operating hours shall be kept.
- c. The Incinerator feed rate shall not exceed the design maximum of 100 pounds per hour of Type 6 waste.
- d. Incinerator ash shall be disposed of according to the Bureau of Remediation and Waste Management. [06-096 C.M.R. ch. 115, BACT/BPT]
- e. SEM shall fire no more than 10,000 gallons per year of LPG in the Incinerator.

The BPT emission limits for the Incinerator were based on the following:

- PM/PM₁₀ – 0.1 gr/dscf based on 06-096 C.M.R. ch. 115, BPT
- SO₂ – 0.1 lb/1000 gas based on AP-42, Table 1.5-1, dated 7/08
- NO_x – 13 lb/1000 gal based on AP-42, Table 1.5-1, dated 7/08
- CO – 7.5 lb/1000 gal based on AP-42, Table 1.5-1, dated 7/08
- VOC – 1.0 lb/1000 gal based on AP-42, Table 1.5-1, dated 7/08
- Visible Emissions – 06-096 C.M.R. ch. 115, BPT

The BPT emission limits for the Incinerator are the following:

Unit	PM (lb/hr)	PM₁₀ (lb/hr)	SO₂ (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Incinerator LPG	0.04	0.04	0.01	0.04	0.02	0.01

Visible emissions from the Incinerator shall not exceed 10% opacity on a six-minute block average basis.

2. Periodic Monitoring

Periodic monitoring for the Incinerator shall include recordkeeping to document fuel use, operating hours, and the weight of material incinerated on a calendar year total basis. The weight of material incinerated shall be determined by subtracting the weight of material left after incineration from the weight of material prior to incineration for each use of the Incinerator. Documentation shall include the type of fuel used.

C. Process Equipment

1. Varnish Dipping and Electric Bake Oven

SEM uses up to 120 gallons of Baking Varnish per year for this operation. Up to 10 gallons per year of thinner are used in the operation as well. VOC emissions from this operation shall be limited to a combined total of 0.5 ton/year. Records documenting varnish used and VOC content of the varnish shall be kept on a calendar year total basis for compliance purposes.

2. Painting

SEM uses aerosol spray cans in their painting operations. Aerosol spray cans are considered insignificant activities per 06-096 C.M.R. ch. 115, Appendix B, Part B(17).

D. Parts Washer

The parts washer has a design capacity of 50 gallons. The parts washer is subject to *Solvent Cleaners*, 06-096 C.M.R. ch. 130 (as amended), and records shall be kept documenting compliance.

E. General Process Emissions

Visible emissions from any general process source shall not exceed 20% opacity on a six-minute block average basis, except for no more than one six-minute block average in a one-hour period.

F. Annual Emissions

1. Total Annual Emissions

SEM shall be restricted to the following annual emissions, based on a calendar year total. The tons per year limits were calculated based on a fuel limit of 10,000 gallons of LPG per year for the Incinerator and a VOC limit of 0.5 tons per year for the Varnish Dipper and the Electric Bake Oven Combined:

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

	<u>PM</u>	<u>PM₁₀</u>	<u>SO₂</u>	<u>NO_x</u>	<u>CO</u>	<u>VOC</u>
Incinerator	0.1	0.1	0.1	0.1	0.1	0.1
Varnish Dipper and Electric Bake Oven	-	-	-	-	-	0.5
Total TPY	0.1	0.1	0.1	0.1	0.1	0.6

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 (as amended), 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:

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

<u>Pollutant</u>	<u>Tons/Year</u>
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-101-71-G-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) Incinerator

- A. The Incinerator shall not operate without the afterburner being in full operation. [06-096 C.M.R. ch. 115, BPT]
- B. A log of Incinerator operating hours shall be kept. [06-096 C.M.R. ch. 115, BPT]
- C. The Incinerator feed rate shall not exceed the design maximum of 100 pounds per hour of Type 6 waste. Documentation of compliance with this limit shall be accomplished by subtracting the weight of material left after incineration from the weight of material prior to incineration for each use of the Incinerator. [06-096 C.M.R. ch. 115, BPT]
- D. Incinerator ash shall be disposed of according to the Bureau of Remediation and Waste Management. [06-096 C.M.R. ch. 115, BPT]
- E. Fuel
 - 1. Total auxiliary fuel use for the Incinerator shall not exceed 10,000 gal/yr of LPG on a calendar year total basis. [06-096 C.M.R. ch. 115, BPT]
 - 2. Compliance shall be demonstrated by fuel records from the supplier showing the quantity and type of the fuel delivered. Records of annual fuel use shall be kept on a calendar year total basis. [06-096 C.M.R. ch. 115, BPT]
- F. Emissions shall not exceed the following [06-096 C.M.R. ch. 115, BPT]:

Unit	PM (lb/hr)	PM₁₀ (lb/hr)	SO₂ (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Incinerator LPG	0.04	0.04	0.01	0.04	0.02	0.01

- G. Visible emissions from the Incinerator shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BPT]

(17) Process Equipment

SEM shall not exceed 0.5 tons per year of VOC emissions from the Varnish Dipper and thinner and the Electric Bake Oven processes combined. Records documenting the amount of varnish and thinner used and the VOC content of the varnish and thinner shall be kept on a calendar year total basis for compliance purposes. [06-096 C.M.R. ch. 115, BPT]

(18) **Parts Washer**

The parts washer at SEM is subject to *Solvent Cleaners*, 06-096 C.M.R. ch. 130 (as amended).

- A. SEM shall keep records of the amount of solvent added to the 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. SEM 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]

(19) **General Process Sources**

Visible emissions from any general process source shall not exceed 20% opacity on a six-minute block average basis, except for no more than one six-minute block average in a one-hour period. [06-096 C.M.R. ch. 101]

(20) SEM 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 7 DAY OF *October*, 2016.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: *Mauro Allen Robert Corne 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: 3/9/2016

Date of application acceptance: 3/30/2016

Date filed with the Board of Environmental Protection:

This Order prepared by Jonathan E. Rice, Bureau of Air Quality.

