



STATE OF MAINE  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PAUL R. LEPAGE  
GOVERNOR

PATRICIA W. AHO  
ACTING COMMISSIONER

**Stultz Electric Motors and Controls, Inc.  
Cumberland County  
Portland, Maine  
A-026-71-J-R**

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

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., §344 and §590, the Department finds the following facts:

**I. REGISTRATION**

**A. Introduction**

Stultz Electric Motors and Controls, Inc. ("Stultz") has applied to renew their Air Emission License permitting the operation of emission sources associated with their small motor and generator repair facility.

The equipment addressed in this license is located at 1 McAlister Farm Road, Portland, Maine 04103

**B. Emission Equipment**

The following equipment is addressed in this air emission license:

**Incinerator**

<b>Class Incinerator</b>	VII
<b>No. of Chambers</b>	2
<b>Type of Waste</b>	Type 6
<b>Max. Design Feed Rate</b>	500 lb/hr
<b>Auxiliary Fuel Input:</b>	
<b>Primary Chamber (Btu/hr)</b>	150,000 natural gas
<b>Secondary Chamber (Btu/hr)</b>	150,000 natural gas
<b>Emission Control</b>	Afterburner

AUGUSTA  
17 STATE HOUSE STATION  
AUGUSTA, MAINE 04333-0017  
(207) 287-7688 FAX: (207) 287-7826  
RAY BLDG., HOSPITAL ST.

BANGOR  
106 HOGAN ROAD, SUITE 6  
BANGOR, MAINE 04401  
(207) 941-4570 FAX: (207) 941-4584

PORTLAND  
312 CANCO ROAD  
PORTLAND, MAINE 04103  
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE  
1235 CENTRAL DRIVE, SKYWAY PARK  
PRESQUE ISLE, MAINE 04679-2094  
(207) 764-0477 FAX: (207) 760-3143

**Process Equipment**

<u>Equipment</u>	<u>Pollutants Generated</u>	<u>Pollution Control Equipment</u>
Varnish Dipper	VOC	none
Bake Oven 1(electric)	VOC	none
Bake Oven 2 (electric)	VOC	none
Steam Cleaner	-	-
Paint/Stripping Booth	PM, VOC	Paper Filters

C. Application Classification

The application for Stultz 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 current licensed emission units only 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 (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. Incinerator

Stultz operates a Class VII incinerator, Model VP13TO 603 installed in 2003, which is a controlled pyrolysis incinerator and is used to remove outer wire electrical coatings from the coil windings by heating at approximately 750-800 °F. The afterburner operates at approximately 1400 °F.

A summary of the BPT analysis for the Incinerator (0.15 MMBtu/hr) and afterburner (0.15 MMBtu/hr) is the following:

To meet the requirements of BPT for the control of PM emissions from the incinerator, Stultz shall operate the incinerator as follows:

1. The incinerator shall not operate without the afterburner being in full operation. To ensure an efficient burn and minimize visible emissions, the afterburner chamber shall be preheated, as specified by the manufacturer, until the pyrometer temperature measures a minimum of 1200°F prior to commencing the burn cycle.
2. 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.
3. 06-096 CMR 104 (as amended) regulates PM emission limits, however a BPT analysis has determined a more stringent limit of 0.10 gr/dscf is appropriate and shall be used. The PM<sub>10</sub> limits are derived from the PM limits.
4. SO<sub>2</sub>, NO<sub>x</sub>, CO and VOC emission limits are based on AP-42 data dated 7/08.
5. Visible emissions from the incinerator shall not exceed 10% opacity on a six (6) minute block average basis.
6. The incinerator and afterburner shall use only natural gas as an auxiliary fuel.

C. Process Equipment

1. Varnish Dip

Stultz utilizes a varnish dip tank as part of their motor refurbishing process. The dip tank is used to seal motor windings to prevent moisture and contaminant penetration. Stultz shall have a maximum total use of 500 gallons per year of varnish from the varnish dip tank. Stultz shall maintain records indicating the amount of varnish added and used for the varnish dip tank.

2. Electric Bake-Out Ovens

Stultz operates two electric bake-out ovens used for drying and curing motor parts. These units are operated on a limited basis with small quantities of VOC emissions from varnish and/or paint applied to the parts. There is no afterburner on the equipment and emissions are considered to be negligible.

3. Steam Cleaner

A steam cleaner is used to clean motors as needed. This unit is self enclosed and uses diesel fuel to generate the required steam. Emissions from this unit are vented through their own stack and are negligible, therefore, this unit is included in the license for inventory purposes only.

4. Other Emission Sources

(a) Stultz also operates a parts cleaner which uses a biodegradable soap solution. There are negligible VOC emissions from this process, and it is included for inventory purposes only.

(b) A spray booth is used for spray painting motors and electrical equipment. The spray booth uses a Kraft paper filter for particulate control. Operators estimated actual paint use at 20 gallons per year and approximately 15 cases of aerosol spray cans per year (24,15 oz. cans/case). An exhaust fan is used to pull pollutants from painting operations in the workspace to the fabric filters. Due to the small amount of paint used at the facility, PM and VOC emissions from painting are considered to be negligible. Stultz shall keep records of paint use to demonstrate emissions of VOC from this process does not exceed 1.0 ton/year. The spray booth is also used as a stripping booth in which air is used to remove insulation from motors. No solvent is used and therefore no VOCs are given off in this process. Again an exhaust fan is used to pull the pollutants from this process through the Kraft fabric filters.

D. Annual Emissions

Stultz shall be restricted to the following annual emissions, based on a calendar year total:

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

	<b>PM</b>	<b>PM<sub>10</sub></b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>VOC</b>
Incinerator	0.26	0.26	0.00	0.50	0.42	0.03
Bake Oven 1	-	-	-	-	-	-
Bake Oven 2	-	-	-	-	-	-
Steam Cleaner	-	-	-	-	-	-
Paint Stripping Booth	-	-	-	-	-	-
<b>Total TPY</b>	<b>0.26</b>	<b>0.26</b>	<b>0.00</b>	<b>0.50</b>	<b>0.42</b>	<b>0.03</b>

**III. AMBIENT AIR QUALITY ANALYSIS**

According to 06-096 CMR 115 (as amended), the level of air quality analyses required for a renewal source shall be determined on a case-by case basis. Modeling is not required for a renewal if the total emissions of any pollutant released do not exceed the following and there are no extenuating circumstances:

<b>Pollutant</b>	<b>Tons/Year</b>
PM	25
PM <sub>10</sub>	25
SO <sub>2</sub>	50
NO <sub>x</sub>	100
CO	250

Based on the total facility licensed emissions, Stultz is below the emissions level required for modeling.

**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 Air Emission License A-026-71-J-R subject to the following conditions.

Severability. The invalidity or unenforceability of any provision, or part thereof, of this License 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.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]

- (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) Incinerator**

- A. The Class VII incinerator shall not exceed the maximum design feed rate of 500 pounds. Auxiliary fuel input to the primary chamber shall not exceed 0.15 MMBtu/hr firing natural gas. Fuel input to the afterburner shall not exceed 0.15 MMBtu/hr firing natural gas. [06-096 CMR 115, BPT]
- B. Stultz 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
- C. 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]
- D. Incinerator ash shall be disposed of according to the Bureau of Remediation and Waste Management. [06-096 CMR 115, BPT]
- E. Visible emissions from the incinerator shall not exceed 10% opacity on a six (6) minute block average basis. [06-096 CMR Chapter 115, BPT]
- F. Based on the process stream content, a licensed allowed particulate matter emission limit of 0.10 gr/dscf corrected to 12% CO<sub>2</sub>, the burning of natural gas as an auxiliary fuel, and the use of AP-42 factors, the incinerator shall be limited to the following [06-096 CMR 115, BPT]:

<b>Pollutant</b>	<b>gr/dscf</b>	<b>lb/hr</b>
PM	0.10	0.02
PM <sub>10</sub>	0.10	0.02
SO <sub>2</sub>	-	0.00
NO <sub>x</sub>	-	0.03
CO	-	0.02
VOC	-	0.00

- (17) Visible emissions from any general process source, including bake ovens and paint/stripping booth operations, shall not exceed an opacity of 20% on a six (6) month block average basis, except for no more than one (1) six (6) minute block average in a one (1) hour period. [06-096 CMR 101]

Stultz Electric Motors and  
Controls, Inc.  
Cumberland County  
Portland, Maine  
A-026-71-J-R

Departmental Findings of Fact  
and Order  
Air Emission License  
Renewal

10

- (18) Stultz shall be limited to 500 gallons of varnish per calendar year in their varnish dip and curing process. Records shall be kept demonstrating varnish use and VOC content to demonstrate that VOC emissions from the varnish dip tank does not exceed 1.0 ton/calendar year, shall be maintained on a monthly basis, in addition to the calendar year total. [06-096 CMR 115, BPT]
- (19) Stultz shall keep records of paint use including gallons of paint used and VOC content and shall be limited to 150 gallons per year of paint in their spray booth to demonstrate that VOC emissions from the paint booth does not exceed 1.0 ton/calendar year. The exhaust from the paint stripping booth shall be exhausted through Kraft fabric filters. The fabric filters from the paint/stripping booth shall be disposed of in accordance with Bureau of Remediation and Waste Management standards. [06-096 CMR 115, BPT]
- (20) Stultz 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 9<sup>th</sup> DAY OF August, 2011.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Patricia W. AHO  
PATRICIA W. AHO, ACTING 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: 6/11/2010

Date of application acceptance 7/11/2010

Date filed with the Board of Environmental Protection:

This Order prepared by Kurt Tidd, Bureau of Air Quality.

