

Stultz Electric Motor & Controls, Inc.
Cumberland County
Portland, Maine
A-26-71-I-R

Departmental
Findings of Fact and Order
Air Emission License

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

Stultz Electric Motor & Controls, Inc. (Stultz) located in Portland, Maine has applied to renew their Air Emission License permitting the operation of emission sources associated with their small motor and generator repair facility.

B. Emission Equipment

The following equipment is addressed in this air emission license:

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

Process Equipment

<u>Equipment</u>	<u>Pollutants Generated</u>	<u>Pollution Control Equipment</u>
Varnish Dipper	VOC	none
Bake Oven (electric)	VOC	none
Electric Oven	VOC	none
Steam Cleaner	-	-
Paint Booth	PM, VOC	none
Stripping Booth	PM	none
Parts Washer	-	-

Stultz has removed a previously licensed Vacuum Pressure Impregnation (VPI) tank.

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 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 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, 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.

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

1. The afterburner shall be operated at all times during incinerator operation.
2. The operation of the incinerator and afterburner shall be documented by a written log.
3. Particulate emissions from the incinerator shall not exceed 0.10 gr/dscf.
4. Visible emissions from the incinerator shall not exceed 10% opacity on a six (6) minute block average basis.
5. The incinerator shall use only natural gas as an auxiliary fuel.

C. Process Emissions

1. Varnish Dip

Stultz utilizes two varnish dip tanks as part of their motor refurbishing process. The dip tanks are 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 above two varnish dip tanks.

2. Electric Bake-Out Ovens

Stultz operates two electric bake-out ovens used for 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, but 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 natural gas 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 manual spray booth uses a kraft paper filter for particulate control on the exhaust line. 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 do not exceed 1.0 ton/year.
- (c) Stultz operates 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. PM emissions are small and controlled by a baghouse.

D. Annual Emissions

Stultz shall be restricted to the following annual emissions, based on a 12 month rolling total:

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

	PM	PM₁₀	SO₂	NO_x	CO	VOC
Incinerator	0.5	0.5	0.1	0.1	0.1	--
Facility Wide Limit	--	--	--	--	--	1.5
Total TPY	0.5	0.5	0.1	0.1	0.1	1.5

III. AMBIENT AIR QUALITY ANALYSIS

According to the Maine Regulations Chapter 115, the level of air quality analyses required for a renewal source shall be determined on a case-by case basis. Modeling and monitoring are not required for a renewal if the total emissions of any pollutant released do not exceed the following:

<u>Pollutant</u>	<u>Tons/Year</u>
PM	25
PM ₁₀	25
SO ₂	50
NO _x	100
CO	250

Based on the above total facility emissions, Stultz is below the emissions level required for modeling and monitoring.

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-26-71-I-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 (Title 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) **Incinerator**

- A. The Class VII incinerator shall not exceed the maximum design feed rate of 500 lb/hr. Auxiliary fuel input to the primary chamber shall not exceed 0.15 MMBtu/hr firing natural gas. [MEDEP Chapter 115, BPT]
- B. A log shall be maintained recording the weight of all waste charged. [MEDEP Chapter 115, BPT]
- C. Incinerator ash shall be disposed of according to the Bureau of Remediation and Waste Management. [MEDEP Chapter 115, BPT]
- D. The licensee shall operate the incinerator such that combustion gases pass through the afterburner which shall be operating at all times the incinerator is in use. [MEDEP Chapter 115, BPT]
- E. Visible emissions from the incinerator shall not exceed 10% opacity on a six (6) minute block average basis. [MEDEP Chapter 115, BPT]

- F. Based on the waste stream content, a licensed allowed particulate matter emission limit of 0.10 gr/dscf corrected to 12% CO₂, the burning of natural gas as an auxiliary fuel, and the use of AP-42 factors, the incinerator shall be limited to the following [MEDEP Chapter 115, BPT]:

Pollutant	gr/dscf	lb/hr
PM	0.10	0.05
PM ₁₀	0.10	0.05
SO ₂	-	0.01
NO _x	-	0.07
CO	-	0.03
VOC	-	0.01

- (17) Stultz shall be limited to 500 gallons of varnish per year in their varnish dip and curing process, based on a 12-month rolling total, and shall be limited to 150 gallons per year of paint in their spray booth, based on a 12-month rolling total. Records shall be kept demonstrating varnish and paint use, and shall be maintained on a monthly basis, in addition to the 12-month rolling total. [MEDEP Chapter 115, BPT]
- (18) Stultz shall keep records of paint use including gallons of paint used and VOC content to demonstrate that VOC emissions from the paint booth do not exceed 1.0 ton/year. [MEDEP Chapter 115, BPT]
- (19) **Parts Washer**

Parts washers at Stultz are subject to MEDEP Chapter 130.

- A. Stultz shall keep records of the amount of solvent added to each parts washer. [MEDEP Chapter 115, BPT]
- B. The following are exempt from the requirements of Chapter 130 [MEDEP Chapter 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 remote reservoir cold cleaning machines that are applicable sources under Chapter 130.
1. Stultz shall attach a permanent conspicuous label to each unit summarizing the following operational standards [MEDEP Chapter 130]:
 - (i) Waste solvent shall be collected and stored in closed containers.
 - (ii) 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.
- (iii) 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.
 - (iv) The cold cleaning machine shall not be exposed to drafts greater than 40 meters per minute when the cover is open.
 - (v) Sponges, fabric, wood, leather, paper products and other absorbent materials shall not be cleaned in the degreaser.
 - (vi) 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.
 - (vii) Spills during solvent transfer shall be cleaned immediately. Sorbent material shall be immediately stored in covered containers.
 - (viii) Work area fans shall not blow across the opening of the degreaser unit.
 - (ix) 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. [MEDEP Chapter 130, 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).

(21) **Payment of Annual License Fee**

Stultz shall pay the annual air emission license fee within 30 days of January 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.

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: 7/21/05

Date of application acceptance: 7/25/05

Date filed with the Board of Environmental Protection: _____

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