



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN ELIAS BALDACCI
GOVERNOR

DAVID P. LITTELL
COMMISSIONER

Down Maine Veterinary Clinic )
York County ) Departmental
Sanford, Maine ) Findings of Fact and Order
A-86-71-H-R ) Air Emission License

After review of the air emissions license renewal 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

Down Maine Veterinary Clinic (Down Maine) of Sanford, Maine has applied to renew their Air Emission License permitting the operation of a Class IV-A (veterinary) incinerator, to dispose of animal remains.

B. Emission Equipment

Down Maine is authorized to operate the following equipment:

The incinerator is a #2 oil (kerosene in the winter) fired Consumat Model C-18P with the following specifications:

Table with 2 columns: Specification and Value. Rows include Class Incinerator (IV-A), No. of Chambers (2), Type of Waste (Type 4), Max. Design Rate (lb/hr) (75), Max. Charging Rate (150 lb per charge), Auxiliary Fuel Input (Primary Chamber: 0.350 #2 fuel oil, Secondary Chamber: 0.350 #2 fuel oil), and Emissions Control (Afterburner).

C. Application Classification

Down Maine has not proposed 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.

Down Maine Veterinary Clinic )  
York County )  
Sanford, Maine )  
A-86-71-H-R 2

Departmental  
Findings of Fact and Order  
Air Emission License

## 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 (last amended December 24, 2005). 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. Equipment Specifications

BPT for the Class IV-A veterinary incinerator includes the following:

Operating temperature in the secondary chamber or refractory lined stack shall be maintained at or above 1600°F with a stack gas retention time, at or above 1600°F, of at least 0.5 second.

To ensure an efficient burn and to prevent odors and visible emissions, the secondary chamber shall be preheated, as specified by the manufacturer, until the pyrometer temperature measures a minimum of 1600°F prior to commencing the burn cycle.

Once the burn cycle has commenced by introduction of primary chamber combustion, the incinerator shall be operated in an efficient manner and as specified by the manufacturer for the period of time between preheat and reaching the set operational temperature to be a minimum of 1600°F in the secondary chamber.

The temperature in the secondary chamber or refractory lined stack shall be maintained at or above 1600°F for the duration of the burn cycle.

A pyrometer and ¼ inch test port shall be installed and maintained at the location of the incinerator or refractory lined stack, which provides sufficient volume to insure a flue gas retention time of not less than 0.5 seconds at the minimum of 1600°F.

Down Maine Veterinary Clinic )  
York County )  
Sanford, Maine )  
A-86-71-H-R 3

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

A log will be maintained recording the weight of each charge, preheat time, charging time and the temperature of the secondary chamber every 60 minutes after start-up until, and including, final shutdown time. For facilities operating a chart recorder, the start time, date, and weight charged may be logged on the chart.

*Incinerator Particulate Emission Standard*, 06-096 CMR 104 (last amended November 3, 1990) regulates particulate matter (PM) from incinerators. A maximum particulate emission rate of 0.20 gr/dscf corrected to 12% CO<sub>2</sub> will be met.

The following emission factors are based on AP-42 data from Tables 2.3-1 and 2.3-2 for biomedical waste incineration (dated 7/93) and Tables 1.3-1 for the combustion of #2 fuel oil (dated 9/98). Down Maine shall fire #2 fuel oil which meets the criteria in ASTM D396.

SO<sub>2</sub> – 0.48 lb/hr based on the AP-42 factor of 2.17 lb/ton and the use of #2 fuel oil which meets the criteria in ASTM D396.

NO<sub>x</sub> – 0.23 lb/hr based on the AP-42 factors of 3.56 lb/ton and 20 lb/1000 gallons.

CO – 0.14 lb/hr based on the AP-42 factor of 2.95 lb/ton and 5 lb/1000 gallons.

VOC – 0.02 lb/hr based on the AP-42 factor of 0.299 lb/ton and 0.556 lb/1000 gallons.

Visible emissions from the incinerator shall not exceed 10% opacity based on a six (6) minute block average basis.

The ash will be disposed of in accordance with the requirements of the Bureau of Remediation and Waste Management.

The incinerator operator(s) shall receive adequate training to operate the incinerator in accordance with the manufacturer's specifications and shall be familiar with the terms of the Air Emission License.

Down Maine Veterinary Clinic	)	Departmental
York County	)	Findings of Fact and Order
Sanford, Maine	)	Air Emission License
A-86-71-H-R	4	

B. Annual Emission Restrictions

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

**Total Allowable Annual Emission for the Facility**  
(used to calculate the annual license fee)

Pollutant	Tons/Year
PM	1.89
PM <sub>10</sub>	1.89
SO <sub>2</sub>	1.90
NO <sub>x</sub>	1.02
CO	0.59
VOC	0.06

**III. AMBIENT AIR QUALITY ANALYSIS**

According to the 06-096 CMR 115, the level of air quality analyses required for a non-major source shall be determined on a case-by-case basis. Based on the information available in the file, the small emissions levels, and the similarity to existing sources, Maine Ambient Air Quality Standards (MAAQS) will not be violated by this source. An air quality analysis is not required for this amendment.

**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-86-71-H-R, subject to and in 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.

**Down Maine Veterinary Clinic** )  
**York County** )  
**Sanford, Maine** )  
**A-86-71-H-R** 5

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

### 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. [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

Down Maine Veterinary Clinic )  
York County )  
Sanford, Maine )  
A-86-71-H-R 6

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

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

Down Maine Veterinary Clinic )  
York County )  
Sanford, Maine )  
A-86-71-H-R 7

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

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) The incinerator shall be used for the disposal of Type 4 (veterinary) waste and shall not be used for the disposal of any plastics, cytotoxic (antineoplastic) drugs or radioactive wastes. [06-096 CMR 115, BPT]
- (17) The incinerator shall not exceed the maximum of 150 lbs. per charge. Auxiliary fuel input to the primary chamber shall not exceed 0.35 MMBtu/hr and the auxiliary fuel input to the secondary chamber shall not exceed 0.350 MMBtu/hr, each on #2 fuel oil which meet the criteria in ASTM D396. Down Maine may fire kerosene in lieu of #2 fuel oil during the winter months. Fuel receipts shall be maintained on a 12 month rolling total to show compliance with the sulfur limits. [06-096 CMR 115, BPT]
- (18) A log shall be maintained recording the weight of each charge, preheating time, charging time, afterburner temperature directly after charging and every 60 minutes after startup until, and including, final shutdown time. For facilities

Down Maine Veterinary Clinic )  
York County )  
Sanford, Maine )  
A-86-71-H-R )  
8

Departmental  
Findings of Fact and Order  
Air Emission License

operating a chart recorder, the start time, date, and weight of waste charged shall be logged on the chart. [06-096 CMR 115, BPT]

- (19) The secondary chamber shall be preheated to a minimum of 1600°F prior to the burning of any waste and shall be maintained at a minimum of 1600°F during the duration of the burn. [06-096 CMR 115, BPT]
- (20) A pyrometer and 1/4 inch test port shall be installed and maintained at that location of the incinerator or refractory lined stack which provides sufficient volume to insure a flue gas retention time of not less than 0.5 seconds at a minimum of 1600°F. [06-096 CMR 115, BPT]
- (21) Down Maine shall not exceed a particulate matter emission limit of 0.20 gr/dscf corrected to 12% CO<sub>2</sub> without the contribution of the CO<sub>2</sub> from the auxiliary fuel. Therefore, based on the maximum design combustion rate and continuous operation of the Class VI-A incinerator, emissions shall be limited to the following: [06-096 CMR 115, 06-096 CMR 104, BPT]

Pollutant	gr/dscf	lb/hr
PM	0.20	5.14
PM <sub>10</sub>	-	5.14
SO <sub>2</sub>	-	0.48
NO <sub>x</sub>	-	0.23
CO	-	0.14
VOC	-	0.02

- (22) Visible emissions from the incinerator shall not exceed an opacity limit of 10% (excluding water vapor) on a six (6) minute block average basis. [06-096 CMR 115, 06-096 CMR 104, BPT]
- (23) The ash will be disposed of in accordance with the requirements of the Bureau of Remediation and Waste Management. [06-096 CMR 115, BPT]
- (24) The incinerator operator(s) shall receive adequate training to operate the incinerator in accordance with the manufacturer's specifications, and shall be familiar with the terms of this Air Emission License as it pertains to the operation of the incinerator. [06-096 CMR 115, BPT]
- (25) Down Maine shall operate and maintain a continuous chart recording device to document compliance with the temperature requirements of this license. [06-096 CMR 115, BPT]

Down Maine Veterinary Clinic )  
York County )  
Sanford, Maine )  
A-86-71-H-R 9

Departmental  
Findings of Fact and Order  
Air Emission License

- (26) Down Maine 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.A. §605).

DONE AND DATED IN AUGUSTA, MAINE THIS 21st DAY OF July, 2010.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: James P. Little  
DAVID P. LITTLE, 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: 3/19/2009

Date of application acceptance: 4/7/2009

Date filed with the Board of Environmental Protection:

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



