

Washington County Technical College)	Departmental
Washington County)	Findings of Fact and Order
Calais, Maine)	Air Emission License
A-806-71-B-A)	Amendment #1

After review of the air emissions license amendment 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

1. Washington County Technical College of Calais, Maine was issued Air Emission License A-806-71-A-N on December 13, 2000 permitting the operation of emission sources associated with their Calais, Maine educational facility.
2. Washington County Technical College has requested an amendment of their air emissions license to reflect, after the fact, the October 2001 removal of their Cleaver Brooks boiler rated at 4.9 MMBtu/hr and the replacement of that boiler with three H.B. Smith boilers, each rated at 1.25 MMBtu/hr.

B. Emission Equipment

Washington County Technical College is applying to include the operation of the following equipment to its air emissions license:

Fuel Burning Equipment

<u>Equipment</u>	<u>Maximum Capacity (MMBtu/hr)</u>	<u>Maximum Firing Rate (gal/hr)</u>	<u>Fuel Type, % sulfur</u>	<u>Stack #</u>
Boiler #3a	1.25	8.9	#2 fuel oil, 0.35%	3
Boiler #3b	1.25	8.9	#2 fuel oil, 0.35%	3
Boiler #3c	1.25	8.9	#2 fuel oil, 0.35%	3

C. Application Classification

The modification of a minor source is considered a major modification based on whether or not expected emission increases exceed the “Significant Emission Levels” as given in Maine’s Air Regulations. This modification is determined to be a minor modification and has been processed as such.

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 Bureau of Air Quality regulations. BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in Chapter 100 of the Air Regulations. BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

B. Emissions Units

Air Emission License A-806-71-A-N permits Washington County Technical College to operate (4) four #2 fuel oil fired boilers primarily for facility heat and hot water. Boiler #1 is a Hydrotherm boiler, installed in 1978 and rated at 1.93 MMBtu/hr. Boiler #2 is a multi temp boiler, installed in 1974 and rated at 1.54 MMBtu/hr. Boiler #3 is a Cleaver Brooks boiler, installed in 1970 and rated at 4.9 MMBtu/hr. Boiler #4 is an H.B. Smith boiler, installed in 1992 and rated at 2.44 MMBtu/hr.

Washington County Technical College has removed the current Boiler #3 and replaced it with (3) three H.B. Smith boilers rated at 1.25 MMBtu/hr each. These boilers will be designated Boiler #3a, Boiler #3b and Boiler #3c.

A summary of the BACT analysis for the (3) three new Boilers is as follows:

1. PM and PM₁₀ limits are derived from Chapter 103, however BACT is stricter. BACT shall be 0.08 lb/MMBtu for PM and PM₁₀.
2. SO₂, NO_x, CO, VOC emissions rates are based on AP-42 emission factors for boilers of less than 100 MMBtu/hr dated 9/98.

3. Visible emissions limits are based on performance data from similar #2 fuel oil fired boilers of this size and age:

Visible emissions from each boiler stack shall not exceed 20% opacity on a six-minute block average, except for 3 six-minute block averages in a 3-hour period.

C. Annual Emission Restrictions

Washington County Technical College shall be restricted to the following annual emissions, based on a 12 month rolling total:

- Total annual facility fuel use shall be limited to 280,000 gallons of #2 fuel oil with a sulfur content not to exceed 0.35% by weight.
- This modification does not include a fuel cap adjustment, therefore no change in potential annual emissions will occur.

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

<u>Pollutant</u>	<u>Tons/Year</u>
PM	2.4
PM ₁₀	2.4
SO ₂	7.0
NO _x	2.8
CO	0.7
VOC	0.1

III. AMBIENT AIR QUALITY ANALYSIS

According to the Maine Regulations Chapter 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, 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.

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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 Amendment A-806-71-B-A subject to the conditions found in Air Emission License A-806-71-A-N and in the following conditions:

The following condition shall replace condition (16) in Air Emission License A-806-71-A-N:

(16) Boilers

A. Total facility fuel use shall not exceed 280,000 gals/yr. of #2 fuel oil with a sulfur content not to exceed 0.35% sulfur by weight based on a 12-month rolling total. Compliance shall be based on fuel receipts from the supplier showing the quantity of fuel delivered and the percent sulfur of the fuel. Fuel use records shall be maintained on a monthly basis, in addition to the 12-month rolling total.

B. Emissions shall not exceed the following:

Equipment		PM	PM ₁₀	SO ₂	NO _x	CO	VOC
Boiler #1	lb/hr	0.23	0.23	0.68	0.28	0.07	0.02
Boiler #2	lb/hr	0.18	0.18	0.55	0.22	0.06	0.01
Boiler #3a	lb/hr	0.10	0.10	0.44	0.18	0.04	0.003
Boiler #3b	lb/hr	0.10	0.10	0.44	0.18	0.04	0.003
Boiler #3c	lb/hr	0.10	0.10	0.44	0.18	0.04	0.003
Boiler #4	lb/hr	0.29	0.29	0.87	0.35	0.09	0.02

C. Visible Emissions

Visible emissions from each boiler stack shall not exceed 20% opacity on a six-minute block average, except for 3 six-minute block averages in a 3-hour period.

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The following are new conditions to Air Emissions License A-806-71-A-N

- (17) Washington County Technical College 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-C).
- (18) Washington County Technical College shall pay the annual air emission license fee within 30 days of December 31 of each year. Pursuant to 38 MRSA 353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for the revocation of the license under 38 MRSA 341-D, Subsection 3.
- (18) This amendment shall expire concurrently with Air Emission License A-806-71-A-N.

DONE AND DATED IN AUGUSTA, MAINE THIS _____ DAY OF _____ 2002.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
MARTHA G. KIRKPATRICK, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: March 19, 2002

Date of application acceptance: April 24, 2002

Date filed with the Board of Environmental Protection: _____

This Order prepared by, Peter G. Carleton, Bureau of Air Quality