STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PAUL R. LEPAGE
GOVERNOR

DARRYL N. BROWN
COMMISSIONER

The Jackson Laboratory
Hancock County
Bar Harbor, Maine
A-93-71-V-A (SM)

Departmental
Findings of Fact and Order
Air Emission License
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., §344 and §590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

1. The Jackson Laboratory (Jackson) was issued Air Emission License A-93-71-U-R on May 20, 2009, permitting the operation of emission sources associated with their biomedical research facility.

2. The equipment addressed in this license is located at 600 Main Street, Bar Harbor, ME.

3. Jackson has requested an amendment to their license in order to install a 49.9 MMBtu/hr wood, oil and gas, multi-fuel boiler. Jackson also requests the current 2,250,000 gallon per year of #2 oil limit be expressed as an equivalent 315,000 MMBtu per year limit of powdered wood pellets, #2 oil and natural gas or propane combined.

B. Emission Equipment

The following equipment is addressed in this air emission license:

Boilers

Equipment	Maximum Capacity (MMBtu/hr)	Maximum Firing Rate	Fuel Type, % sulfur	Stack #
Boiler #12	44.4	5842 lb/hr	Wood Pellets, Neg. S, Moisture ≤10%	6
	49.9	1000 scf/hr	Natural Gas/Propane, Neg. S	
	49.9	356.4 gal/hr	#2 fuel oil, 0.05% S	

C. Application Classification

A new emission unit at a minor source is considered a major modification based on whether or not expected emission increases exceed the "Significant Emission Levels" as defined in the Department's regulations. The emission increases for a new source are determined by the maximum future license allowed emissions, as follows:

Pollutant	Max. Future License (TPY)	Significance Level
PM	20.1	100
PM_{10}	20.1	100
SO_2	22.85	100
NO_x	94.1	100
CO	58.8	100
VOC	5.25	50
HAP	0.8	

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 *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 new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in *Definitions Regulation*, 06-096 CMR 100 (as amended). BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

B. BEST AVAILABLE CONTROL TECHNOLOGY ANALYSIS

Control of Particulate Matter:

PM from fuel combustion is formed from non-combustible material (ash) in the fuel and from incomplete combustion. Potential control technologies for PM emissions include: add-on pollution control equipment (electrostatic precipitators, cyclones and baghouses), combustion of clean fuels and good combustion practices.

Add On Controls – include baghouses, cyclones, and electrostatic precipitators. In wood or biomass combustion, attention must be paid to potential fire hazards introduced by combustion and particulate control. Multicyclones provide low capital and operating cost control for many wood boilers and are capable of achieving collection efficiencies of 25 to 65 percent.

Baghouses are capable of providing collection efficiencies of 80% or higher. The annualized cost of a baghouse system, including an estimated capital cost of approximately $390,000, would be approximately $197,000 per year or $27,000 per year per ton of PM controlled.

Electrostatic precipitators are capable of providing collection efficiencies greater than 90%. An electrostatic precipitator would invoke annualized costs of approximately $270,000 or $37,000 per ton of PM controlled per year.

The installation of a baghouse or an ESP is not cost effective to limit such small amounts of PM emissions, however, in order to meet ambient air quality standards, PM emissions will need to be controlled with a baghouse when Jackson is burning wood pellets. Thus, Jackson proposes to install a baghouse, and operate it when wood pellets are being burned, and meet a limit of 0.04 lb PM/MMBtu.

Combustion of Clean Fuels – to minimize PM emissions is accomplished by burning fuels with minimal impurities together with good combustion practices. Jackson proposes the use of a wood powder burner that provides cleaner combustion with generation of less particulate than other forms of biomass combustion. For fuel oil, Jackson finds it technically and economically feasible to burn a low sulfur fuel with a maximum sulfur content of 0.05% by weight.

Good combustion practices reduce the products of incomplete combustion, including PM, and are technically feasible to control PM emissions from Boiler #12.

Jackson proposes good combustion practices and burning clean fuels (low sulfur fuel) and the installation of a baghouse to reduce PM while burning wood pellets as BACT for the boiler. Jackson additionally proposes an emission limit of 0.04 lb PM/MMBtu for Boiler #12 as representing BACT.

Control of Sulfur Dioxide:

Pollution control options to reduce emissions of SO_2 formed during combustion include flue gas desulfurization by wet scrubbing or restricting the sulfur content of the fuel oil. The cost of a wet scrubbing system for a relatively small boiler including associated annual operating costs does not make this option economically feasible. The alternative is the option of limiting the sulfur content of the fuel burned; wood and natural gas or propane have low sulfur content, however the sulfur content of #2 fuel oil can vary.

Jackson proposes limiting the #2 fuel oil sulfur content to 0.05% by weight, and the firing of low sulfur wood biomass pellets and natural gas or propane as BACT for control of SO_2.

Control of Nitrogen Oxides:

Potential control technologies include add-on controls (Selective Catalytic Reduction and Selective Non-Catalytic Reduction), combustion control techniques (Low Excess Air Firing, Low Nitrogen Fuel Oil, Burner Modifications, Water/Steam Injection and Flue Gas Recirculation), and combustion of clean fuel.

Add-on Controls – include SNCR and SCR which are primarily used on large industrial and utility boilers. The cost of installing add-on controls, together with the annual operating cots, added energy consumption and maintenance makes this option economically unfeasible.

Combustion Control Practices – NOx can be controlled through combustion practices including low excess air firing and burner modifications, as well as low NOx burners and flue gas recirculation (FGR). Low NOx burners are typically used on large industrial and utility boilers; installation of small boilers tends not to be economically feasible. An FGR system re-circulates a portion of the flue gas back into the main combustion chamber where thermal NOx formation is reduced by decreasing peak flame temperatures. Ductwork is typically run from the boiler outlet duct to the combustion air duct. The cost of installing an FGR system on a relatively small boiler does not make this option economically feasible for Boiler #12.

Combustion of Clean Fuels – to minimization of NOx emissions is accomplished by burning fuels with less fuel-bound nitrogen. Jackson proposes to burn wood which typically has low nitrogen content.

Jackson proposes combustion control techniques, including good combustion practices and burning clean fuels as representing BACT. Jackson proposes an emission limit of 0.19 lb NOx/MMBtu for Boiler #12 as representing BACT for wood.

Control of Carbon Monoxide and Volatile Organic Compounds:

CO and VOC emissions result from incomplete combustion of fuels, because of either insufficient residence time or insufficient available oxygen during combustion. Based on the relatively small size of Boiler #12 it is not economically feasible to install add-on pollution control equipment for CO and VOC emission control.

Auxiliary equipment is not needed to control VOC emissions from commercial and industrial boilers; properly maintaining the burner/boiler package will reduce VOC emissions to a minimum. Proper maintenance includes keeping the air/fuel ration at the manufacturer's specified setting, having the proper air and fuel pressures at the burner and maintaining the atomizing air pressure on oil burners at the correct levels.

C. Boiler #12

The boiler has a rated heat input capacity of 49.9 MMBtu/hour, and is therefore subject to the New Source Performance Standards (NSPS) 40 CFR Part 60, Subpart Dc, *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*, for units greater than 10 MMBtu/hour manufactured after June 9, 1989.

Boiler #12 is capable of firing powdered wood pellets, with a maximum moisture content of 10%, ASTM D396 compliant #2 fuel oil, with a maximum sulfur content of 0.05%, and natural gas or propane.

A summary of the BACT analysis for Boiler #12 is the following:

1. The total fuel use for the facility shall not exceed 315,000 MMBtu per year of ASTM D396 compliant #2 fuel oil with maximum sulfur content not to exceed 0.05% by weight, powdered wood pellets, natural gas and propane combined, based on a 12-month rolling total.

2. *Low Sulfur Fuel*, 06-096 CMR 106 (as amended) regulates fuel sulfur content, however the BACT analysis proposed at sulfur limit of 0.05% which is more stringent and shall be used.
3. *Fuel Burning Equipment Particulate Emission Standard*, 06-096 CMR 103 (as amended) regulates PM emission limits. The BACT analysis submitted with the application proposes a particulate matter limit of 0.04 lb/MMBtu which is more stringent and shall be used.
4. Jackson shall continuously operate the baghouse on Boiler #12 when Boiler #12 is in operation except during periods of startup, shutdown and unavoidable malfunction.
5. NO_x emission limit of 0.3 lb/MMBtu is based on BACT.
6. CO and VOC emission limits are based upon AP-42 data dated 9/98.
7. Visible emissions from the boiler shall not exceed 20% opacity on a six (6) minute block average, except for no more than one (1) six (6) minute block average in a continuous 3-hour period.

D. Fugitive Emissions

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed 20% opacity, except for no more than five (5) minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual fifteen (15)-second opacity observations which exceed 20% in any one (1) hour.

E. Annual Emissions

Jackson shall be restricted to the following annual emissions, based on a 12-month rolling total and a fuel limit of 315,000 MMBtu per year for #2 oil, powdered wood pellets with a maximum moisture content of 10%, and natural gas or propane, combined.

Total Licensed Annual Emissions for the Facility
Tons per Year
(Used to calculate the annual license fee)

	PM	PM_{10}	SO_2	NO_x	CO	VOC	HAP
Boilers	12.6	12.6	12.45	47.3	47.3	3.15	-
Generator #2	0.1	0.1	0.1	2.6	0.6	0.2	-
Generator #3	0.1	0.1	0.1	2.7	0.6	0.2	-
Generator #6	0.4	0.4	0.2	10.0	2.7	0.3	-
Generator #8	0.3	0.3	0.1	4.3	2.0	0.2	-
Generator #9	0.3	0.3	0.1	4.3	2.0	0.2	-
Generator #10	0.3	0.3	0.1	4.3	2.0	0.2	-
Incinerator #1	3.0	3.0	4.2	9.3	0.8	0.4	-
Incinerator #2	3.0	3.0	4.2	9.3	0.8	0.4	-
Sterilizers	-	-	-	-	-	-	0.8
Total TPY	**20.1**	**20.1**	**22.6**	**94.1**	**58.8**	**5.3**	**0.8**

III. AMBIENT AIR QUALITY ANALYSIS

A. Overview

A refined modeling analysis was performed to show that emissions from TJL, in conjunction with other sources, will not cause or contribute to violations of Maine/National Ambient Air Quality Standards (MAAQS/NAAQS) for SO_2, PM_{10}, NO_2 or CO. It has been determined by MEDEP-BAQ that TJL does not consume SO_2, PM_{10} or NO_2 increment, therefore, Class I and Class II SO_2, PM_{10}, and NO_2 increment analyses were not performed.

Since the current licensing action for TJL represents a minor modification to an existing minor source, it has been determined by MEDEP-BAQ that an assessment of Class I Air Quality Related Values (AQRVs) is not required.

B. Model Inputs

The AERMOD-PRIME refined model was used to address standards. The modeling analysis accounted for the potential of building wake and cavity effects on emissions from all modeled stacks that are below their calculated formula GEP stack heights.

All modeling was performed in accordance with all applicable requirements of the Maine Department of Environmental Protection, Bureau of Air Quality (MEDEP-BAQ) and the United States Environmental Protection Agency (USEPA).

A valid five-year hourly off-site meteorological database was used in the AERMOD-PRIME refined modeling analysis. Five years of wind data was collected at a height of 15 meters at the Owls Head MEDEP meteorological monitoring site from 2005-2009. When possible, surface data collected at the Knox County Regional Airport FAA site were substituted for missing on-site data. All other missing data were interpolated or coded as missing, per USEPA guidance. In addition, hourly Knox County Airport FAA data, from the same time period, were also used to supplement the primary surface dataset for the required variables that were not explicitly collected at the Owls Head MEDEP monitoring site.

The surface meteorological data was combined with concurrent hourly cloud cover and upper-air data obtained from the Gray National Weather Service (NWS). Missing cloud cover and/or upper-air data values were interpolated or coded as missing, per USEPA guidance.

All necessary representative micrometeorological surface variables for inclusion into AERMET (surface roughness, Bowen ratio and albedo) were calculated using AERSURFACE from procedures recommended by USEPA.

Point-source parameters, used in the modeling are listed in Table III-1.

TABLE III-1 : Point Source Stack Parameters

Facility/Stack	Stack Base Elevation (m)	Stack Height (m)	GEP Stack Height (m)	Stack Diameter (m)	UTM Easting NAD83 (km)	UTM Northing NAD83 (km)
CURRENT/PROPOSED						
IV. TJL						
• Stack #1 (Boilers 2, 3, 10 & 11)	48.77	28.05	51.82	0.91	564.044	4912.789
• Stack #5 (Boilers 7, 8 & 9)	44.20	19.81	30.48	1.07	564.035	4912.604
• Stack #6 (Boiler 12)	43.13	18.29	31.28	0.91	564.115	4912.656

Emission parameters for NAAQS and MAAQS modeling are listed in Table III-2. The emission parameters for TJL are based on the maximum license allowed (worst-case) operating configuration. For the purposes of determining PM_{10}, all PM emissions were conservatively assumed to convert to PM_{10}. For the purposes of determining NO_2 impacts, the Plume Volume Molar Ratio Method (PVMRM) was applied. The PVMRM is the third-tier approach which accounts for the NO to NO_2 conversion chemistry that takes place within a plume, mostly through interaction with ozone. Hourly background ozone data, obtained from USEPA's CASTNET site, for Acadia National Park was used as the primary dataset. Any missing data were substituted using concurrent data from the Port Clyde monitoring station or code as missing.

TABLE III-2 : Stack Emission Parameters

Facility/Stack	Averaging Periods	SO_2 (g/s)	PM_{10} (g/s)	NO_2 (g/s)	CO (g/s)	Stack Temp (K)	Stack Velocity (m/s)
MAXIMUM LICENSE ALLOWED							
TJL							
Scenario 1							
• Stack #1 (Boilers 2, 3, 10 & 11)	All	0.40	0.63	2.37	0.32	450.00	13.69
• Stack #5 (Boilers 7, 8 & 9)	All	0.51	0.80	3.01	0.40	450.00	12.72
• Stack #6 (Boiler 12)	All	0.50	0.25	1.19	1.89	422.00	10.76
Scenario 2							
• Stack #1 (Boilers 2 &10)	All	0.20	0.32	1.19	0.16	450.00	6.84
• Stack #5 (Boilers 7 & 9)	All	0.29	0.46	1.74	0.23	450.00	7.36
• Stack #6 (Boiler 12)	All	0.37	0.19	0.90	1.41	422.00	8.07

C. Single Source Modeling Impacts

AERMOD-PRIME refined modeling, using five years of sequential meteorological data, was performed for a total of three operating scenarios that represented maximum, typical and minimum operations.

The modeling results for TJL alone are shown in Tables III-3. Maximum predicted impacts that exceed their respective significance level are indicated in boldface type. No further modeling was required for pollutants that did not exceed their respective significance levels.

TABLE III-3 : Maximum AERMOD-PRIME Impacts from TJL Alone

Pollutant	Averaging Period	Max Impact ($\mu g/m^3$)	Receptor UTM E (km)	Receptor UTM N (km)	Receptor Elevation (m)	Max Impact Scenario	Class II Significance Level ($\mu g/m^3$)
SO_2	1-hour	**157.37**[1]	564.364	4912.205	108.63	1	**10**[2]
	3-hour	**92.99**	564.410	4912.320	98.00	1	**25**
	24-hour	**45.54**	564.064	4912.595	43.79	1	**5**
	Annual	**7.42**	564.054	4912.595	44.02	2	**1**
PM_{10}	24-hour	**71.44**	564.064	4912.595	43.79	1	**5**
	Annual	**11.14**	564.044	4912.595	44.24	2	**1**
NO_2	1-hour	**164.97**[1]	564.064	4912.605	43.99	1	**10**[3]
	Annual	**42.33**	564.044	4912.595	44.24	2	**1**
CO	1-hour	482.24	564.360	4912.310	96.30	1	**2000**
	8-hour	214.03	564.340	4912.280	93.69	1	**500**

[1] Significance value based on the average of H1H (high-1st-high) concentrations for each of the five years of meteorological data
[2] Interim Significant Impact Level (SIL) adopted by Maine
[3] Interim Significant Impact Level (SIL) adopted by NESCAUM states

D. Combined Source Modeling Impacts

For predicted modeled impacts from TJL alone that exceeded significance levels, as indicated in boldface type in Table III-3, other sources not explicitly included in the modeling analysis must be accounted for by using representative background concentrations for the area.

Background concentrations, listed in Table III-4, are derived from representative rural background data for use in the Eastern Maine region.

TABLE III-4 : Background Concentrations

Pollutant	Averaging Period	Background Concentration ($\mu g/m^3$)
SO_2	1-hour	47[1]
	3-hour	18[2]
	24-hour	11[2]
	Annual	1[2]
PM_{10}	24-hour	42[3]
	Annual	10[3]
NO_2	1-hour	47[4]
	Annual	3[4]

[1] Village Green Site - Rumford
[2] MacFarland Hill Site - Acadia National Park
[3] Background Site - Baileyville
[4] MicMac Site - Presque Isle

MEDEP examined other area sources whose impacts would be significant in or near TJL's significant impact area. Due to the applicant's location, extent of the significant impact area and nearby source's emissions, MEDEP has determined that no other sources would be considered for combined source modeling.

For pollutant averaging periods that exceeded significance levels, the maximum modeled impacts for all sources were added with conservative rural background concentrations to demonstrate compliance with NAAQS/MAAQS, as shown in Table III-5. Because all pollutant/averaging period impacts using this method meet NAAQS/MAAQS, no further modeling analyses need to be performed.

TABLE III-5 : Maximum Combined Sources Impacts

Pollutant	Averaging Period	Max Impact ($\mu g/m^3$)	Receptor UTM E (km)	Receptor UTM N (km)	Receptor Elevation (m)	Back-Ground ($\mu g/m^3$)	Max Total Impact ($\mu g/m^3$)	MAAQS/ NAAQS ($\mu g/m^3$)
SO_2	1-hour	**135.38**[1]	564.364	4912.255	103.78	**47**	**182.38**	**196**
	3-hour	**92.99**	564.410	4912.320	98.00	**18**	**110.99**	**1150**
	24-hour	**45.54**	564.064	4912.595	43.79	**11**	**56.54**	**230**
	Annual	**7.42**	564.054	4912.595	44.02	**1**	**8.42**	**57**
PM_{10}	24-hour	**71.44**	564.064	4912.595	43.79	**42**	**113.44**	**150**
	Annual	**11.14**	564.044	4912.595	44.24	**10**	**21.14**	**40**
NO_2	1-hour	**126.51**[2]	564.364	4912.205	108.63	**47**	**173.51**	**188**
	Annual	**42.33**	564.044	4912.595	44.24	**3**	**45.33**	**100**

[1] Average of H4H (high-4th-high) concentrations for each of the five years of meteorological data
[2] Average of H8H (high-8th-high) concentrations for each of the five years of meteorological data

E. Increment

It has been determined by MEDEP-BAQ that TJL does not consume SO_2, PM_{10} or NO_2 increment, therefore, Class I and Class II SO_2, PM_{10}, and NO_2 increment analyses were not performed.

Federal guidance and 06-096 CMR 115 require that any major new source or major source undergoing a major modification provide additional analyses of impacts that would occur as a direct result of the general, commercial, residential, industrial and mobile-source growth associated with the construction and operation of that source. Since this licensing action represents a minor modification to an existing minor source, no additional analyses were required.

F. Class I AQRV Impacts

Since the current licensing action for TJL represents a minor modification to an existing minor source, it has been determined by MEDEP-BAQ that an assessment of Class I Air Quality Related Values (AQRVs) is not required.

G. Summary

In summary, it has been demonstrated that TJL in its proposed configuration will not cause or contribute to a violation of any SO_2, PM_{10}, NO_2 or CO averaging period NAAQS/MAAQS or any SO_2, PM_{10} or NO_2 averaging period Class I or Class II increment standards.

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-93-71-V-A subject to the conditions found in Air Emission License A-93-71-U-R, and in the following conditions.

SPECIFIC CONDITIONS

(16) **Boiler #12**

A. Total fuel use for the facility shall not exceed 315,000 MMBtu per year of ASTM D396 compliant #2 fuel oil with sulfur content not to exceed 0.05% by weight, natural gas, propane and powdered wood pellets combined. Compliance shall be demonstrated by fuel records from the supplier showing the quantity of fuel delivered and the percent sulfur of the fuel oil. Records of annual fuel use shall be kept on a 12-month rolling total basis. [06-096 CMR 115, BPT]

B. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Boiler #12	PM	0.04	06-096 CMR 103(2)(B)(1)(a), BACT

C. Emissions shall not exceed the following [06-096 CMR 115, BPT]:

Emission Unit	PM (lb/hr)	PM_{10} (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #12	2.0	2.0	3.89	14.7	14.97	1.00

D. Jackson shall continuously operate a baghouse on the emissions from Boiler #12 whenever Boiler #12 is burning wood pellets except during periods of startup, shutdown or unavoidable malfunction. [06-096 CMR 115, BPT, 40 CFR 60 Subpart A, MSRA 590]

E. Visible emissions from Boiler #12 shall not exceed 20% opacity on a six (6) minute block average, except for no more than two (2) six (6) minute block averages in a continuous 3-hour period. [06-096 CMR 101]

(17) **Fugitive Emissions**

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed 20% opacity, except for no more than five (5) minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual fifteen (15)-second opacity observations which exceed 20% in any one (1) hour. [06-096 CMR 101]

(18) **General Process Sources**

Visible emissions from any general process source shall not exceed 20% opacity on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period. [06-096 CMR 101]

(19) **New Source Performance Standards for Dc Boilers**

Boiler #12 is subject to Federal New Source Performance Standards, Subpart Dc. Jackson shall comply with all requirements of 40 CFR Part 60, Subpart Dc including, but not limited to, the following:

A. Jackson shall submit notification to EPA and the Department of the date of construction, anticipated start-up, and actual start-up. This notification shall include the design heat input capacity of the boiler and the type of fuel to be combusted.
B. Jackson shall perform and submit to EPA and the Department an initial PM, opacity and SO_2 performance test within 30 days after achieving the maximum production rate at which the facility will be operated but not later than 180 days after the initial start-up of the facility. The SO_2 performance test shall consist of fuel supplier certification of the sulfur content of the fuel fired in Boiler #12. The fuel supplier certification must contain the name of the oil supplier and a statement from the oil supplier that the oil complies with ASTM specifications for #2 fuel oil.
C. Jackson shall record and maintain records of the amounts of each fuel combusted during each day.
D. Jackson shall submit to EPA and the Department semi-annual reports. These reports shall include the calendar dates covered in the reporting period and records of fuel supplier certifications. The semi-annual reports are due within 30 days of the end of each 6-month period.

E. The following address for EPA shall be used for any reports or notifications required to be copied to them:

Compliance Clerk
USEPA Region 1
1 Congress Street
Suite 1100
Boston, MA 02114-2023

F. As provided 40 CFR 60, § 47c(f) Jackson may either demonstrate compliance with the opacity standards under 40 CFR 60, § 43c(c) by using a bag leak detection system to monitor the performance of a baghouse according to the most recent requirements in 40 CFR 60, § 48Da in lieu of operating a continuous opacity monitoring system (COMS) or by operating a COMS. Jackson will retain the flexibility to demonstrate compliance using either method at any time.

G. If Jackson demonstrates compliance with the opacity standards under 40 CFR 60, § 43c(c) by using a bag leak detection system, Jackson will conduct performance tests for opacity according to 40 CFR 60, § 47c(a)(1), (a)(2) or (a)(3).

DONE AND DATED IN AUGUSTA, MAINE THIS 18th DAY OF February, 2011.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
DARRYL N. BROWN, COMMISSIONER

The term of this amendment shall be concurrent with the term of Air Emission License A-93-71-U-R.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 08/19/2010
Date of application acceptance: 08/23/2010

Date filed with the Board of Environmental Protection:

This Order prepared by N. Lynn Cornfield, Bureau of Air Quality.

Filed
FEB 18 2011
State of Maine
Board of Environmental Protection