STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN ELIAS BALDACCI
GOVERNOR

DAVID P. LITTELL
COMMISSIONER

Tex-Tech Industries, Inc.	)	**Departmental**
Kennebec County	)	**Findings of Fact and Order**
North Monmouth, Maine	)	**Air Emission License**
A-473-71-G-R/A		

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

1. Tex-Tech Industries, Inc. (Tex-Tech) of North Monmouth, Maine has applied to renew their Air Emission License permitting the operation of emission sources associated with their North Monmouth, Maine textile manufacturing facility.

2. The renewal of the Tex-Tech Air Emission License incorporates an amendment that provides for the installation of a new 250 BHP biomass fired gasification boiler and the removal of a previously licensed oil fired boiler.

B. Emission Equipment

Tex-Tech is authorized to operate the following air emission units:

Fuel Burning Equipment

Equipment	Date of Construction	Maximum Capacity (MMBtu/hr)	Fuel Type, % Sulfur	Maximum Firing Rate	Stack #
Boiler #1	1963	10.5	#2, 0.35%	70.0 gal/hr	1
Boiler #2	1971	14.6	#2, 0.35%	97.6 gal/hr	1
Boiler #3	2010	8.4	Biomass	1.2 ton/hr	3
Dryer/Heat Setter	1984	8.8	Propane		2
Singer	1984	1.5	Propane		4

1. Tex-Tech has additional insignificant activities, which do not need to be listed in the above table.
2. Tex-Tech will be removing Boiler #1 from the facility in order to install Boiler #3 but this permit will continue to allow for the operation of Boiler #1 until its removal.

C. Application Classification

The renewal/amendment application for Tex-Tech includes the licensing of a new emissions unit at the facility. 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 defined in the Department's regulations. The emission increases are determined by subtracting the current licensed emissions preceding the modification from the maximum future licensed allowed emissions, as follows:

	Tons/yr			
Pollutant	**Past License**	**Future License**	**Change**	**Significant Level**
PM	5.2	12.6	+7.4	100
PM_{10}	5.2	12.6	+7.4	100
SO_2	8.1	12.2	+4.1	100
NO_x	23.5	24.6	+1.1	100
CO	2.6	9.9	+7.3	100
VOC	15.5	16.9	+1.3	50

The addition of the new biomass fired gasification boiler and the removal of the previously licensed Boiler #1 will not result in a significant emissions increase of any regulated pollutant, therefore this modification is considered to be a minor modification of a minor source and the application is considered to be a renewal/amendment of a minor source and has been processed as such according to Maine's rule, *Major and Minor Source Air Emission License Regulations*, 06-096 CMR 115 (last amended December 24, 2005).

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 1, 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.

BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in 06-096 CMR 100. BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts per 06-096 CMR 115.

B. Process Description

Tex-Tech is a woven and non-woven textile facility. Raw materials consist of natural wool and synthetic fibers used in the production of a variety of hi-tech fabrics and felts for use in tennis balls, fire-blocking, brake pads and ballistics. The raw materials are brought on site in bales and pulled apart by "bear claw" pickers. Equipment hoods in the picking and blending areas scavenge and divert air through a filter baghouse and re-introduce the air to the process areas.

The shredded material is diverted to a blender to establish the natural and synthetic fiber mix before the blended material is channeled to either the woven or non-woven production areas.

1. Woven Material Production

Some of the blended material is put through a card machine, of which Tex-Tech has nine. The card machines pulls the materials into fine strands and then ropes (rubs) the material into threads or yarns to be used later in the woven material process. Air from this process area is vacuumed with a positive displacement (reciprocal) vacuum and blown to a settling chamber. The fibers in the settling chamber are re-cycled and the air from the settling chamber is blown back into the process area.

The roped material is then spun onto spindles and the spindles are brought to the warping (weaving) area for weaving into sheets. The spindling process area does not generate any real amount of dust, therefore this area does not have any particulate control.

2. Non-Woven Material Production

Blended material is dumped into a hopper, which meters the material into a carding machine. Instead of being roped into yarns, as with the previous carding machines discussed in the Woven Material discussion, the material is run through a "Batt", which orients the loose material into sheets. The sheets are run through a "Cross-Lapper", which laps the sheets across themselves and provides some compression, resulting in a multi-layer sheet. The multi-layer sheets are run through one of the facility's five "Needle Looms", which utilizes barbed needles to puncture the sheets and draw material up through the sheets to interlock the material.

After the material is made into sheets, either woven or non-woven, there are several processing directions that the material may take including the following:

1. Some of the sheets are passed through the "Belt Heat Setter", which is used to stabilize the material. The belt heat setter is electrically heated and the process is vented to a roof vent. When the material passes through the heater, some of the fiber lubricants, which are mostly seed oils, are burned off and creates a small degree of opacity from the process. The opacity generated from this process is usually in the 5 to 10% range.

2. Some of the sheets are passed through a "Singer", which will burn off (or melt back) any protruding fibers to give the material a flatter surface. The Singer is a fuel-burning piece of equipment and will be discussed in greater depth later in this license.

3. Some sheets are passed through "Fullers", which turn the sheets through two, vertically oriented, spinning, drums over and over again. The wearing action of the drums acts to further stabilize the fibers in the sheets.

4. Some sheets are passed through a "Calendar", which acts to compress the sheets between two, horizontally oriented, hot oil heated, rotating drums. The compression action compresses the sheets to a desired caliper or thickness. The oil in the drums is heated via an oil/steam heat exchanger and circulated through the drums in a closed loop. The steam is generated from the facility's two utility boilers. The calendar process is hooded and vented to a roof vent.

5. Some of the material is passed through a dye/chemical wash, which applies color and/or chemical treatment to the sheets. The dye/chemical wash vat is hooded and the emissions are vented to atmosphere.

After the many treatments that the sheets can be passed through, they are passed through a finishing "Dryer/Heat Setter". The dryer/heat setter is a fuel-burning piece of equipment and will be discussed in greater depth later in this license.

C. Fuel Burning Equipment

1. Boiler #3 (The new biomass fired degasification boiler)

Tex Tech has requested that this Air Emission License renewal includes the addition of a new biomass fired degasification boiler to be designated Boiler #3. The new unit was manufactured by Chiptec in 2010, has a combustion chamber heat input capacity of 8.4 MMBtu/hr at a feed rate of approximately 0.9 tons per hour (ton/hr) and will exhaust to a new 70 foot above ground level stack designated Stack #3.

Boiler #3 has a heat input capacity of less than 10 MMBtu/hr, therefore, the boiler is not subject to EPA's New Source Performance Standards (NSPS) Subpart Dc.

Tex Tech has requested a biomass (wood chips) fuel cap for Boiler #3 of 8175 tons of wood per year (ton/yr) with a moisture content of 50% or equivalent. The biomass (wood chips) with a moisture content of approximately 50% has heat value of approximately 4500 Btu per pound.

The unit is equipped with a multiclone collector for particulate control. The dust collector has a manufacturer's guarantee for particulate control of no greater than 0.2 lb/MMBtu of biomass fired. The utilization of the multiclone satisfies the BACT requirement in regards to particulate control. Chiptec also guarantees a NO_x emission rate of no greater that 0.2 lb/MMBtu, as well as a guarantee of a CO emission rate of no greater than 0.2 lb/MMBtu.

A summary of the BACT analysis for Boiler #3 is as follows:

a. *Fuel Burning Equipment Particulate Emission Standard,* 06-096 CMR 103, (last amended November 3, 1990) regulates PM emission limits. However, the emission limit of 0.2 lb/MMBtu when firing biomass as guaranteed by the manufacturer is more stringent and shall be considered BACT. PM_{10} emission limits are derived from PM limits.
b. SO_2 emissions limits during periods of wood firing only are established using AP-42 emission factors dated 7/01.
c. The NO_x emission rate is guaranteed by the manufacturer to be no greater than 0.2 lb/MMBtu and this rate shall be considered the BACT NO emission restriction.
d. The CO emission rate is guaranteed by the manufacturer to be no greater than 0.2 lb/MMBtu and this shall be BACT.
e. VOC emissions limits were calculated using AP-42 emissions factors dated 7/01 for wood combustion.
f. Visible emissions from Stack #3 is subject to *Visible Emissions Regulation,* 06-096 CMR 101 (last amended May 18, 2003). Visible emissions from Stack #3 during periods of wood combustion shall not exceed 20% opacity on a 6-minute block average, except for no more than 2 six-minute block averages in a 3-hour period.

The Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency has written the NESHAP for Industrial, Commercial, and Institutional Boilers and Process Heaters (40 CFR Part 63, Subpart JJJJJJ, or more commonly referred to as the Boiler MACT). This Federal regulation was signed on April 29, 2010 and will be published in the Federal Register before December 16, 2010.

Tex Tech may be subject to certain requirements in established by the regulation therefore Tex Tech will be required to notify the Department as to the applicability of requirements of Subpart JJJJJJ by July 31, 2011.

2. Boiler #2

Boiler #2 is a Cleaver Brooks manufactured boiler with a design capacity of 14.6 MMBtu/hr, firing #2 fuel oil and vents to a stack designated Stack #1. Boiler #2 was manufactured in 1971, prior to the New Source Performance Standards (NSPS) applicability date and is therefore not subject to EPA's NSPS Subpart Dc. Tex Tech's previous Air Emission License established BPT for the firing of #2 fuel oil in Boiler #2 as requiring that the fuel meets the criteria in ASTM D396 for #2 fuel oil.

Tex Tech's previous Air Emission License (A-473-71-D-R) established an annual #2 fuel oil limit for the facility's oil fired boilers of 300,000 gallons per year (gal/yr). Although the facility plans only to operate one oil fired boiler, Tex-Tech has not asked for a change in the facility's annual fuel usage restriction, however Tex Tech has asked that this renewal include language to allow for fuel flexibility for Boiler #2. Tex Tech has requested that this renewal permit the firing of #2 fuel oil or propane in Boiler #2. The Department determined that establishing an annual boiler heat input restriction for Boiler #2 will allow Tex Tech the operational flexibility to burn either #2 fuel oil or propane at any time. The annual boiler heat input restriction shall be the equivalent of the heat value of 300,000 gallons of #2 fuel oil, which is equal to 42,000 MMBTu/yr. Compliance with the facility wide boiler heat input restriction shall be documented via a fuel use record that will be maintained on a twelve-month rolling total basis. The fuel use record shall include the amount of fuel fired, either propane or #2 fuel oil, certification of meeting the sulfur content restrictions and/or ASTM D396 criteria for #2 fuel oil and calculations converting the fuel usage into MMBtu heat input.

Heat input shall be calculated using the following formulas:

i. For #2 fuel use: Heat input equals (#2 fuel usage (in gallons) x 140,000 Btu per gallon of #2 fuel)

ii. For propane fuel use: Heat input equals (propane fuel usage (in gallons) x 92,000 Btu per gallon of propane)

A summary of the BPT analysis for Boiler #2 (14.6 MMBtu/hr) when firing #2 fuel oil is as follows:

a. PM emissions from Stack #1 are regulated by 06-096 CMR 103, however, the PM emission limit of 0.12 lb/MMBtu when firing #2 fuel oil is more stringent and shall be considered BPT. PM_{10} emission limits are derived from PM limits.
b. SO_2 emissions limits are based on the firing of #2 fuel oil which meets the criteria in ASTM D396 for #2 fuel oil.
c. SO_2, NO_x, CO, VOC emissions rates are based on AP-42 emission factors for boilers of less than 100 MMBtu/hr dated 9/98.
d. Visible emissions from Stack #1 are regulated by 06-096 CMR 101. Visible emissions from Stack #1 shall not exceed 20% opacity on a six-minute block average except, for no more than 2 six-minute block averages in a 3-hour period.

3. Boiler #1

Boiler #1 is a Cleaver Brooks with a design capacity of 4.6 MMBtu/hr and currently vents to a common stack, designated Stack #1. Boiler #1 will be removed from the facility as this boiler is housed in a part of the building that must be renovated to accommodate the new biomass fired degasification boiler. This Air Emission License will continue to allow for the operation of Boiler #1 until its removal.

4. Singer

Tex-Tech utilizes the Singer to burn off any small protruding fibers from the surface of the sheets giving the fabric a flatter surface. The unit has two burners and has a maximum design heat input capacity of 1.5 MMBtu/hr firing propane. The unit is hooded and vents to atmosphere via a roof vent.

Typically, the BPT for fuel burning equipment, firing propane, is a particulate emission limit 0.05 lb/MMBtu. In this case, where the process inherently generates particulate, the Department shall consider BPT satisfied with a particulate emission limit of no greater than 0.2 lb/hr.

A summary of the BPT analysis for Singer is as follows:

a. PM emissions from Singer are regulated by *General Process Source Particulate Emission Standard*, 06-096 CMR 105, however BPT for PM emissions from the Singer shall be a more stringent limit of no greater than 0.2 lb/hr of particulate. PM_{10} emission limits are based on PM limits.

b. SO_2 emissions rates are based on previously licensed limits.
c. NO_x, CO, VOC emissions rates are based on AP-42 emission factors for the firing of propane dated 10/96.
d. Visible emissions from Singer are regulated by 06-096 CMR 101. Visible emissions from Singer vent shall not exceed 20% opacity on a six-minute block average basis, except for no more than 1 six-minute block average in a 3-hour period.

5. Dryer/Heat Setters

Tex-Tech utilizes two Dryer/Heat Setters, designated Dryer/Heat Setters #1 and #2, to dry the sheets of any moisture acquired during any of the treatment processes discussed above. Dryer/Heat Setter #1 has eleven burners, eleven circulating fans and two exhaust fans. The unit has a maximum design heat input capacity of 8.8 MMBtu/hr firing propane. The exhaust fans blow the exhaust gases through two exhaust manifolds that vent to atmosphere via a roof vent.

Dryer/Heat Setter #2 has a maximum design heat input capacity of 9.7 MMBtu/hr firing propane. The unit has six burners, 12 heat zones and a twin stack configuration for better combustion and heating control. The twin stacks, designated Stacks 2A and 2B, are 20 inches in inside diameter, 10 feet above roof elevation and vents to atmosphere.

Typically, the BPT for fuel burning equipment, firing propane, is a particulate emission limit 0.05 lb/MMBtu. In this case, where the process inherently generates particulate, the Department shall consider BPT satisfied with a particulate emission limit of no greater than 0.2 lb/hr.

A summary of the BPT analysis for the Dryer/Heat Setters, Dryer/Heat Setter #1 (8.8 MMBtu/hr) and Dryer/Heat Setter #2 (9.7 MMBtu/hr) is as follows:

a. PM emissions from the Dryer/Heat Setters are regulated by 06-096 CMR 105, however BPT for PM emissions from the Dryer/Heat Setters shall be a more stringent limit of no greater than 0.2 lb/hr of particulate. PM_{10} emission limits are based on PM limits.
b. SO_2 emissions rates are based on previously licensed limits.
c. NO_x, CO, VOC emissions rates are based on AP-42 emission factors for the firing of propane dated 10/96.
d. Visible emissions from the Dryer/Heat Setters are regulated by 06-096 CMR 101. Visible emissions from Dryer/Heat Setter vent shall not exceed 20% opacity on a six-minute block average basis, except for no more than 1 six-minute block average in a 3-hour period.

6. Process Emissions Sources

Tex-Tech utilizes various dyes and chemicals in the production and treatment of their fabrics. The VOC content of the chemicals varies and the VOC content and the facility's usage of the dyes and chemicals is given in the table:

Chemical	Process	% VOC
Altoma Scroop 10114	Dye	ND
Roanoke Yellow	Dye	ND
Dow Corning 36 Emulsion	Chemical Treatment	ND
FP138 Fluorochemical	Chemical Treatment	ND
Tar Remover 91892	Chemical Treatment	50%
Teflon FEP Resin	Chemical Treatment	43%
Teflon 30	Chemical Treatment	40%
BayGard	Chemical Treatment	ND

Annual VOC emissions from the dye/chemical treatment process shall not exceed 15.0 tons per year based on a twelve-month rolling total. Tex-Tech shall maintain a record of material use, which shall include the amount of dyes and chemicals used, the VOC content of the dyes and chemicals and calculations of the VOCs emitted based on a twelve-month tolling total.

D. Annual Emission Restrictions

- Tex-Tech shall be subject to an annual Boiler #2 heat input restriction equivalent to the heat value of 300,000 gallons of #2 fuel or which is equal to 42,000 MMBtu/yr.
- Tex Tech shall be subject to an annual wood fuel usage restriction for Boiler #3 of 8175 ton/yr of 50% moisture biomass or equivalent.
- Emissions potentials from propane firing equipment were calculated based on 8760 hours/year operation.

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

Pollutant	**Tons/yr**					
	Oil Fired Boilers	Boiler #3	Singer	Dryer/Heat Setters	Process Emissions	Total
PM	2.5	7.4	0.9	1.8	-	12.6
PM_{10}	2.5	7.4	0.9	1.8	-	12.6
SO_2	10.7	0.9	0.04	0.6	-	12.2
NO_x	4.2	7.4	1.0	12.0	-	24.6
CO	0.8	7.4	0.1	1.6	-	9.9
VOC	0.1	1.4	0.03	0.4	15.0	16.9

III. AMBIENT AIR QUALITY ANALYSIS

According to 06-096 CMR 115, the level of air quality analyses required for a minor 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. Based on the total facility emissions, Tex-Tech 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-473-71-G-R/A, subject to the following conditions:

Severability: The invalidity or unenforceability of any provision, or part thereof, of this Air Emission License shall not affect the remainder of the provision or any other provisions. This Air Emission 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 06-096 CMR 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.

(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:

(i) perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:

a. 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
b. pursuant to any other requirement of this license to perform stack testing.

(ii) 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

(iii)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:

(i) 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

(ii) 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

(iii)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) Oil Fired Boilers (Boilers #1 and #2)

A. Tex Tech's shall fire only fuel oil that meets the criteria in ASTM D396 for #2 fuel oil (0.5% sulfur by weight). [06-096 CMR 115, BPT]

B. Tex-Tech shall be subject to an annual Boiler #2 heat input restriction which shall be the equivalent of the heat value of 300,000 gallons of #2 fuel or which is equal to 42,000 MMBtu/yr. [06-096 CMR 115, BPT]

C. Compliance with the facility wide boiler heat input restriction shall be documented via a fuel use record that will be maintained on a twelve-month rolling total basis. The fuel use record shall include the amount of fuel fired, either propane or #2 fuel oil, certification of meeting the sulfur content restrictions and/or ASTM D396 criteria for #2 fuel oil and calculations converting the fuel usage into MMBtu heat input. [06-096 CMR 115, BPT]

Heat input shall be calculated using the following formulas:

iii. For #2 fuel use: Heat input equals (#2 fuel usage (in gallons) x 140,000 Btu per gallon of #2 fuel)

iv. For propane fuel use: Heat input equals (propane fuel usage (in gallon) x 92,000 Btu per gallon of propane)

D. Boiler emissions shall not exceed the following:

Equipment		PM	PM_{10}	SO_2	NO_x	CO	VOC
Boiler #1*	lb/MMBtu	0.12	-	-	-	-	-
	lb/hr	0.2	0.2	3.7	5.3	0.4	0.04
Boiler #2	lb/MMBtu	0.12	-	-	-	-	-
	lb/hr	0.2	0.2	5.2	7.3	0.5	0.06

[06-096 CMR 115, BPT]

* Boiler #1 is going to be removed and is included in the "Order" of this permit as it may need to be operated in the period of time before it is removed.

E. Visible Emissions

1. Visible emissions from Stack #1, during periods when only one of the two boilers is in operation, shall not exceed 20% opacity on a six-minute block average basis, except for no more than 1 six-minute block average in a 3-hour period. [MEDEP Chapter 101]

2. Visible emissions from Stack #1, during periods when both of the two boilers are in operation, shall not exceed 30% opacity on a six-minute block average basis, except for no more than 1 six-minute block average in a 3-hour period. [MEDEP Chapter 101]

(17) Wood Fired Boiler (Boiler #3)

A. Tex-Tech is limited to firing no more than 8175 tons of biomass fuel per year with a 50% moisture content or equivalent in Boiler #3 based on a twelve-month rolling total. Tex-Tech shall maintain fuel use records on a monthly and twelve-month rolling total basis.
[06-096 CMR 115, BACT]

B. Boiler #3 shall not exceed the following emission limits:

Equipment		PM	PM_{10}	SO_2	NO_x	CO	VOC
Boiler #1	lb/MMBtu	0.2	-	-	-	-	-
	lb/hr	1.7	1.7	0.2	1.7	1.7	0.3

[06-096 CMR 103 and 115, BACT]

C. Visible emissions from Stack #3 shall not exceed 20% opacity on a 6-minute block average, except for no more than two 6-minute block averages in a 3-hour period. [06-096 CMR 101]

D. Tex Tech shall notify the Department as to the applicability of requirements of Subpart JJJJJJ by July 31, 2011.
[40 CFR Part 63, Subpart JJJJJJ, 06-096 CMR 115, BACT]

(18) Singer & Dryer/Heat Setter

A. Emissions shall be limited to the following:

Equipment		PM	PM_{10}	SO_2	NO_x	CO	VOC
Singer	lb/hr	0.9	0.9	0.04	1.0	0.1	0.03
Dryer/Heat Setter #1	lb/hr	0.9	0.9	0.3	5.7	0.8	0.2
Dryer/Heat Setter #2	lb/hr	0.9	0.9	0.3	6.3	0.9	0.2

[06-096 CMR 115, BPT]

B. Visible emissions from the Singer and the Dryer/Heat Setters each shall not exceed an opacity of 20% on a 6-minute block basis, except for no more than 1 six-minute block average in a 3-hour period. [06-096 CMR 101]

(19) Process Emissions

Annual VOC emissions from the dye/chemical treatment process shall not exceed 15.0 tons per year based on a twelve-month rolling total. Tex-Tech shall maintain a record of material use, which shall include the amount of dyes and chemicals used, the VOC content of the dyes and chemicals and calculations of the VOCs emitted based on a twelve-month tolling total. [06-096 CMR 115, BPT]

(20) Fugitive Emissions

Visible emissions from potential sources of fugitive particulate matter emissions shall not exceed an opacity of 20%, except for no more than 5-minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual 15-second opacity observations which exceed 20% in any 1-hour.
[06-096 CMR 101]

(21) Tex-Tech 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). [06-096 CMR 115]

DONE AND DATED IN AUGUSTA, MAINE THIS 27th DAY OF May 2010.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: James P. Brooks for
DAVID P. LITTELL, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

The term of this Order shall be for five (5) years from the above signature date.

Date of initial receipt of application: **March 29, 2010**
Date of application acceptance: **April 26, 2010**

Date filed with the Board of Environmental Protection: _____

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

FILED
MAY 27 2010
BOARD OF ENVIRONMENTAL PROT.
STATE OF MAINE