



DEPARTMENT ORDER

**Tex-Tech Industries, Inc.**  
**Kennebec County**  
**North Monmouth, Maine**  
**A-473-71-H-R (SM)**

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

**FINDINGS OF FACT**

After review of the air emission license renewal application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 Maine Revised Statutes Annotated (M.R.S.A.), §344 and §590, the Maine Department of Environmental Protection (Department) finds the following facts:

**I. REGISTRATION**

A. Introduction

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

The equipment addressed in this license is located at 105 North Monmouth Street, North Monmouth, Maine.

B. Emission Equipment

The following equipment is addressed in this air emission license:

**Boilers and Process Heaters**

<u>Equipment</u>	<u>Maximum Capacity (MMBtu/hr)</u>	<u>Maximum Firing Rate (gal/hr)</u>	<u>Fuel Type</u>	<u>Date of Manuf.</u>	<u>Stack #</u>
Boiler #2	14.6	161.3 gal/hr,	Propane	1971	#1
		97.6 gal/hr	Distillate, 0.5% S		
Boiler #3	8.4	0.9 ton/hr	Biomass	2010	#3
Dry Heat Setter #1	8.8	97.3 gal/hr	Propane	1984	#2
Dry Heat Setter #2	9.7	107.2 gal/hr	Propane	2009	#5 & #6
Singer	1.5	16.6 gal/hr	Propane	1984	#4

**Generator**

<u>Equipment</u>	<u>Power Output (KW)</u>	<u>Firing Rate (gal/hr)</u>	<u>Fuel Type</u>	<u>Date of Manuf.</u>
Generator #1	60	6.52	Propane	2010

C. Application Classification

The application for Tex-Tech 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 currently licensed emission units only and has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 Code of Maine Rules (CMR) 115 (as amended). With a heat input limit on Boiler #2 of 42,000 MMBtu/yr, and a process emissions VOC limit of 15 tpy, the facility is licensed below the major source thresholds for criteria pollutants and is considered a synthetic minor. In addition, Tex-Tech is licensed below the major source thresholds for hazardous air pollutants (HAP) and is considered an area source of HAP emissions.

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. 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. Process Description

Tex-Tech is a textile facility utilizing woven and non-woven technology to produce a wide variety of hi-tech products including woven and non-woven tennis ball felt. Raw material is trucked to the facility for the production lines. For the non-woven production lines, the raw material arrives at the facility and is then blended for the fiber makeup of the product and then is processed and felted to the customer's specifications.

The main complex consists of several production buildings along with other supporting buildings. Within the main complex the following departments are housed; accounting,

general offices, final inspection, shipping and receiving, new product development, maintenance and production.

*Non-woven textiles*

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.

Nonwoven fabric is a fabric-like material made from long fibers, bonded together by chemical, mechanical, heat or solvent treatment. The term is used in the textile manufacturing industry to denote fabrics, such as felt, which are neither woven nor knitted. Some nonwoven materials lack sufficient strength unless densified or reinforced by a backing.

*Applications*

Nonwoven fabrics are broadly defined as sheet or web structures bonded together by entangling fiber or filaments (and by perforating films) mechanically, thermally or chemically. They are flat or tufted porous sheets that are made directly from separate fibers, molten plastic or plastic film. They are not made by weaving or knitting and do not require converting the fibers to yarn. Typically, a certain percentage of recycled fabrics and oil-based materials are used in nonwoven fabrics. The percentage of recycled fabrics vary based upon the strength of material needed for the specific use. In addition, some nonwoven fabrics can be recycled after use, given the proper treatment and facilities. For this reason, some consider nonwovens a more ecological fabric for certain applications, especially in fields and industries where disposable or single use products are important, such as hospitals, schools, nursing homes and luxury accommodations.

Nonwoven fabrics are engineered fabrics that may have a limited life, single-use fabric or a very durable fabric. Nonwoven fabrics provide specific functions such as absorbency, liquid repellence, resilience, stretch, softness, strength, flame retardancy, washability, cushioning, thermal insulation, acoustic insulation, filtration, use as a bacterial barrier and sterility. These properties are often combined to create fabrics suited for specific jobs, while achieving a good balance between product use-life and cost. They can mimic the appearance, texture and strength of a woven fabric and can be as bulky as the thickest paddings. In combination with other materials they provide a spectrum of products with diverse properties, and are used alone or as components of apparel, home furnishings, health care, engineering, industrial and consumer goods.

*Nonwovens*

Nonwovens at Tex-Tech are made in multiple steps. Numerous different types of fibers are purchased from fiber suppliers in bales. These fibers are then blended, "opened" in a

multistep process, dispersed on a conveyor belt, and spread in a uniform web by a carding/crosslapping process. Carding operations typically use ~1.5" long fibers. Rayon used to be a common fiber in nonwovens, now greatly replaced by polyethylene terephthalate (PET) and polypropylene. The fibers are then bonded using the needlepunching/needle felting method: mechanical intertwining of fibers by needles on multiple manufacturing lines/machines where they are formed into batts or sheet like forms.

### *Bonding*

Staple nonwovens have no mechanical resistance in and of themselves, without the bonding step. Several methods can be used: thermal bonding Use of a heat setter calendering through heated rollers, calenders can be smooth faced for an overall bond or patterned for a softer, more tear resistant bond

After the material is made into sheets, there are several processing directions that the material may including the following:

1. For certain fabric finishes, some of these sheets are passed through a "Singer", which sings the surfaces of the sheets burning (or melting 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.
2. Additional sheets are passed through "Fulling Mills", 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.
3. For a different finish, others 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 system. The steam is generated from the facility's two utility boilers. The calendar process is hooded and vented to a roof vent.
4. Fabrics for filtration and other finishes can be 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 some of these treatments that the material is passed through, they are processed further 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. Boiler #2

Tex-Tech operates Boiler #2 for steam production. The boiler is rated at 14.6 MMBtu/hr and fires primarily propane with distillate as a backup fuel. The boiler was installed in 1971 and exhausts through its own stack.

1. BPT Findings

The BPT emission limits for Boiler #2 firing propane were based on the following:

Propane

- PM/PM<sub>10</sub> – 0.05 lb/MMBtu based on 06-096 CMR 115, BPT
- SO<sub>2</sub> – 0.018 lb/1000 gal based on AP-42, Table 1.5-1, dated 7/08
- NO<sub>x</sub> – 13 lb/1000 gal based on AP-42, Table 1.5-1, dated 7/08
- CO – 7.5 lb/1000 gal based on AP-42, Table 1.5-1, dated 7/08
- VOC – 1 lb/1000 gal based on AP-42, Table 1.5-1, dated 7/08
- Opacity – 06-096 CMR 101

The BPT emissions limits for Boiler #2 firing propane are the following:

Unit	Pollutant	lb/MMBtu
Boiler #2	PM	0.05

Unit	PM (lb/hr)	PM <sub>10</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #2 propane	0.73	0.73	0.01	2.1	1.21	0.16

Visible emissions from Boiler #2 when firing propane shall not exceed 10% opacity on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 3-hour period.

Distillate Fuel

*Distillate Fuel* means fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396, diesel fuel oil numbers 1 or 2, as defined in ASTM D975, kerosene, as defined in ASTM D3699, biodiesel as defined in ASTM D6751, or biodiesel blends as defined in ASTM D7467.

The BPT emission limits for Boiler #2 firing distillate fuel were based on the following:

- PM/PM<sub>10</sub> – 0.12 lb/MMBtu based on 06-096 CMR 115, BPT
- SO<sub>2</sub> – based on firing distillate fuel with a maximum sulfur content of 0.5% by weight
- NO<sub>x</sub> – 20 lb/1000 gal based on AP-42, Table 1.3-1, dated 5/10
- CO – 5 lb/1000 gal based on AP-42, Table 1.3-1, dated 5/10
- VOC – 0.2 lb/1000 gal based on AP-42, Table 1.3-3, dated 5/10
- Opacity – 06-096 CMR 101

The BPT emission limits for Boiler #2 firing distillate fuel are the following:

Unit	Pollutant	lb/MMBtu
Boiler #2	PM	0.12

Unit	PM (lb/hr)	PM <sub>10</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #2 distillate fuel	1.75	1.75	7.35	2.09	0.52	0.02

Visible emissions from Boiler #2 when firing distillate shall not exceed 20% opacity on a 6-minute block average basis, except for no more than one (1) six (6) minute block average in a 3-hour period.

Boiler #2 shall be limited to a heat input of 42,000 MMBtu/yr based on a 12-month rolling total.

The following shall be used to determine the monthly heat input into Boiler #2:

$$\left( \frac{\text{gal dist.fuel}}{\text{month}} \right) \left( \frac{0.14 \text{ MMBtu}}{\text{gal distillate fuel}} \right) + \left( \frac{\text{gal.propane}}{\text{month}} \right) \left( \frac{0.0905 \text{ MMBtu}}{\text{gal.propane}} \right) = \frac{\text{MMBtu heat input to boiler}}{\text{month}}$$

#### Fuel Sulfur Content Requirements

Boiler #2 is licensed to fire distillate fuel which, by definition, has a sulfur content of 0.5% or less by weight. Per 38 M.R.S.A. §603-A(2)(A)(3), as of July 1, 2018, no person shall import, distribute, or offer for sale any distillate fuel with a sulfur content greater than 0.0015% by weight (15 ppm). Therefore, beginning July 1, 2018, the distillate fuel purchased or otherwise obtained for use in Boiler #2 shall not exceed 0.0015% by weight (15 ppm).

2. Periodic Monitoring

Periodic monitoring for the boiler shall include recordkeeping to document fuel use and heat input both on a monthly and 12-month rolling total basis. Documentation shall include the type of fuel used and sulfur content of the fuel, if applicable.

3. 40 CFR Part 60, Subpart Dc

Due to the year of manufacture, Boiler #2 is not 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/hr manufactured after June 9, 1989.

4. 40 CFR Part 63, Subpart JJJJJ

Subpart JJJJJ is not applicable to units firing gas, hot water heaters, temporary boilers, residential boilers, electric utility steam generating units covered by subpart UUUUU, etc.

Boiler #2 is not subject to the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources (40 CFR Part 63 Subpart JJJJJ) since the unit is considered an existing gas fired boiler, rated less than 10 MMBtu/hr.

Gas-fired boilers are exempt from 40 CFR Part 63, Subpart JJJJJ. However, boilers which fire fuel oil are not. A "gas-fired boiler" is defined as any boiler that burns gaseous fuels not combined with any solid fuels and burns liquid fuel only during periods of gas curtailment, gas supply interruption, startups, or periodic testing on liquid fuel. Periodic testing of liquid fuel shall not exceed a combined total of 48 hours during any calendar year. [40 CFR Part 63.11237]

If the boiler no longer meets the definition of a gas fired boiler, Tex-Tech shall conduct a tune up and an energy assessment within 180 days of the effective date of the fuel switch. Notification of such changes must be submitted according to 40 CFR §63.11225(g). [40 CFR §63.11210(h)]

Boiler #2 is considered an existing boiler because it was in operation prior to June 4, 2010. If Boiler #2 converts back to firing another fuel (such as distillate fuel) in the future it would become subject as an existing boiler at the time it converts back to oil.

D. Boiler #3

Tex-Tech operates Boiler #3, a biomass fired gasification boiler manufactured by Chiptec in 2010, for supplying steam. The boiler is rated at 8.4 MMBtu/hr and fires biomass to

produce steam for the facility. The boiler was installed after June 4, 2010 and exhausts through Stack #3.

1. BACT Findings

The BACT emission limits for Boiler #3 were based on the following:

Biomass Fuel

- PM/PM<sub>10</sub> – 0.2 lb/MMBtu based on A-473-71-G-R/A (5/27/2010), BACT
- SO<sub>2</sub> – 0.025 lb/MMBtu based on AP-42, Table 1.6-2, dated 9/03
- NO<sub>x</sub> – 0.20 lb/MMBtu, based on A-473-71-G-R/A (5/27/2010), BACT
- CO – 0.20 lb/MMBtu, based on A-473-71-G-R/A (5/27/2010), BACT
- VOC – 0.017 lb/MMBtu based on AP-42, Table 1.6-2, dated 9/03
- Opacity – 06-096 CMR 115, BACT

The BACT emission limits for Boiler #3 are the following:

Unit	Pollutant	lb/MMBtu
Boiler #3	PM	0.2

Unit	PM (lb/hr)	PM <sub>10</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #3 biomass	1.7	1.7	0.2	1.7	1.7	0.2

Visible emissions from the Boiler #3 shall not exceed 20% opacity on a 6-minute block average basis, except for no more than two (2) six (6) minute block averages in a 3-hour period.

Tex-tech's yearly emissions are based on firing 8175 tons of biomass fuel per year with a moisture content of 50% or equivalent. The biomass fuel has a moisture content of approximately 50% having a heat value of approximately 4500 Btu/pound.

E. Periodic Monitoring

Periodic monitoring and documentation for the boiler shall include recordkeeping to document fuel use both on a monthly and 12 month rolling total basis.

F. 40 CFR Part 60, Subpart Dc

Due to the size, the boiler is not 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/hr manufactured after June 9, 1989.



G. 40 CFR Part 63, Subpart JJJJJ

Boiler #3 may be subject to the *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources* (40 CFR Part 63 Subpart JJJJJ). The unit was installed after June 4, 2010, and as such, is considered new biomass fired boiler.

Tex-Tech has indicated they will request an Applicability Determination from EPA to designate this unit as a gasifier and not a boiler, as such it would not be subject to the provisions of Subpart JJJJJ.

For informational purposes, a summary of the currently applicable federal 40 CFR Part 63 Subpart JJJJJ requirements is listed below. Notification forms and additional rule information can be found on the following website:

<http://www.epa.gov/ttn/atw/boiler/boilerpg.html>.

a. Notifications and Work Practice Requirements

(1) Boiler Tune-Up Program

- (i) A boiler tune-up program shall be implemented. [40 CFR Part 63.11223]
- (ii) Each tune-up shall be conducted at a frequency specified by the rule and based on the size, age, and operations of the boiler. See chart below:

Boiler Category	Tune-Up Frequency
New Biomass fired boiler	Every 2 years

[40 CFR Part 63.11223(a) and Table 2]

- (iii) The boiler tune-up program, conducted to demonstrate continuous compliance, shall be performed as specified below:

1. As applicable, inspect the burner, and clean or replace any component of the burner as necessary. Delay of the burner inspection until the next scheduled shutdown is permitted; not to exceed 36 months from the previous inspection. [40 CFR Part 63.11223(b)(1)]
2. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern, consistent with the manufacturer's specifications. [40 CFR Part 63.11223(b)(2)]
3. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure it is correctly calibrated and functioning properly. Delay of the

- inspection until the next scheduled shutdown is permitted; not to exceed 36 months from the previous inspection. [40 CFR Part 63.11223(b)(3)]
4. Optimize total emissions of CO, consistent with manufacturer's specifications. [40 CFR Part 63.11223(b)(4)]
  5. Measure the concentration in the effluent stream of CO in parts per million by volume (ppmv), and oxygen in volume percent, before and after adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. [40 CFR Part 63.11223(b)(5)]
  6. If a unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of start-up. [40 CFR Part 63.11223(b)(7)]

(iv) Tune-Up Report: A tune-up report shall be maintained onsite and, if requested, submitted to EPA. The report shall contain the following information:

1. The concentration of CO in the effluent stream (ppmv) and oxygen (volume percent) measured at high fire or typical operating load both **before** and **after** the boiler tune-up;
2. A description of any corrective actions taken as part of the tune-up of the boiler; and
3. The types and amounts of fuels used over the 12 months prior to the tune-up of the boiler, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit. [40 CFR §63.11223(b)(6)]

(2) Compliance Report:

A compliance report shall be prepared by March 1<sup>st</sup> biennially which covers the previous two calendar years. The report shall be maintained by the source and submitted to the Department and to the EPA upon request. The report must include the items contained in §63.11225(b)(1) and (2), including the following: [40 CFR §63.11225(b)]

- (i) Company name and address;
- (ii) A statement of whether the source has complied with all the relevant requirements of this Subpart;
- (iii) A statement certifying truth, accuracy, and completeness of the notification and signed by a responsible official and containing the official's name, title, phone number, email address, and signature;
- (iv) The following certifications, as applicable:

1. "This facility complies with the requirements in 40 CFR §63.11223 to conduct tune-ups of each boiler in accordance with the frequency specified in this Subpart."
2. "No secondary materials that are solid waste were combusted in any affected unit."
3. "This facility complies with the requirement in 40 CFR §§63.11214(d) to conduct a tune-up of each applicable boiler according to 40 CFR §63.11223(b)."

b. Recordkeeping

Records shall be maintained consistent with the requirements of 40 CFR Part 63, Subpart JJJJJ including the following [40 CFR Part 63.11225(c)]:

- (1) Copies of notifications and reports with supporting compliance documentation;
- (2) Identification of each boiler, the date of tune-up, procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned;
- (3) Records of the occurrence and duration of each malfunction of each applicable boiler; and
- (4) Records of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore the malfunctioning boiler.

Records shall be in a form suitable and readily available for expeditious review.  
[63.1125(a)(4)(vi)]

H. 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.

The Department considers BPT satisfied with a particulate emission limit of no greater than 0.2 lb/hr based on BPT determination in license A-473-71-D-R (4/25/05).

1. BPT Findings

The BPT emission limits for the Singer were based on the following:

- |                     |   |
|---------------------|---|
| PM/PM <sub>10</sub> | – 0.2 lb/hr based on determination in A-473-71-D-R (4/25/05), BPT |
| SO <sub>2</sub>     | – 0.018 lb/1000 gal based on AP-42, Table 1.5-1, dated 7/08       |
| NO <sub>x</sub>     | – 13 lb/1000 gal based on AP-42, Table 1.5-1, dated 7/08          |
| CO                  | – 7.5 lb/1000 gal based on AP-42, Table 1.5-1, dated 7/08         |
| VOC                 | – 1 lb/1000 gal based on AP-42, Table 1.5-1, dated 7/08           |
| Opacity             | – 06-096 CMR 101  |

The BPT emission limits for the Singer are the following:

<u>Unit</u>	<u>PM (lb/hr)</u>	<u>PM<sub>10</sub> (lb/hr)</u>	<u>SO<sub>2</sub> (lb/hr)</u>	<u>NO<sub>x</sub> (lb/hr)</u>	<u>CO (lb/hr)</u>	<u>VOC (lb/hr)</u>
Singer	0.2	0.2	0.01	0.22	0.12	0.02

Visible emissions from the Singer shall not exceed 10% opacity on a 6-minute block average basis, except for no more than one (1) six (6) minute block average in a 3-hour period.

I. Dryer/Heat Setters #1 and #2

Tex-Tech utilizes the two Dryer/Heat Setters to dry the sheets of any moisture acquired during any of the treatment processes discussed above. Both Dryer/Heat Setter #1 and #2 were manufactured by Monfort's of Germany. Dryer/Heater 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.

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

The Department considers BPT satisfied with a particulate emission limit of no greater than 0.2 lb/hr based on BPT determination in license A-473-71-D-R (4/25/2005).

BPT Findings

The BPT emission limits for the Dryer/Heat Setters were based on the following:

- PM/PM<sub>10</sub> – 0.2 lb/MMBtu, A-473-71-D-R (4/25/2005), BPT
- PM/PM<sub>10</sub> – 0.2 lb/hr, A-473-71-D-R (4/25/2005), BPT
- SO<sub>2</sub> – 0.6 lb/hr, A-473-71-D-R (4/25/2005), BPT
- NO<sub>x</sub> – 13 lb/1000 gal based on AP-42, Table 1.5-1, dated 7/08
- CO\* – 7.5 lb/1000 gal based on AP-42, Table 1.5-1, dated 7/08
- VOC\* – 1 lb/1000 gal based on AP-42, Table 1.5-1, dated 7/08
- Opacity – 06-096 CMR 101

\*CO and VOC emission factors have been updated.

The BPT emission limits for the Dryer/Heat Setters are as follows:

<u>Unit</u>	<u>Pollutant</u>	<u>lb/MMBtu</u>
Dryer/Heat Setter #1 & #2	PM	0.02

<u>Unit</u>	<u>PM (lb/hr)</u>	<u>PM<sub>10</sub> (lb/hr)</u>	<u>SO<sub>2</sub> (lb/hr)</u>	<u>NO<sub>x</sub> (lb/hr)</u>	<u>CO (lb/hr)</u>	<u>VOC (lb/hr)</u>
Dryer/Heat Setter #1 propane	0.20	0.20	0.06	1.26	0.73	0.10
Dryer/Heat Setter #2 propane	0.20	0.20	0.07	1.39	0.80	0.11

Visible emissions from each of the Dryer/Heat Setter #1 and #2 stacks shall not exceed 10% opacity on a six-minute block average basis, except for no more than 1 six-minute block average in a 3-hour period.

J. Generator #1

Tex-Tech operates one emergency generator (Generator #1). An emergency generator is a generator set consisting of an engine and an electrical generator. Generator #1 has an engine rated at 0.6 MMBtu/hr firing propane. The emergency generator was manufactured in 2010.

BPT Findings

The BPT emission limits for Generator #1 are based on emission factors for 4 stroke rich burn spark ignition engines as follows:

- PM/PM<sub>10</sub> - 0.05 lb/MMBtu from 06-096 CMR 103
- SO<sub>2</sub> - 0.001 lb/MMBtu from AP-42, Table 3.2-3 (7/2000)
- NO<sub>x</sub> - 2.27 lb/MMBtu from AP-42, Table 3.2-3 (7/2000)
- CO - 3.72 lb/MMBtu from AP-42, Table 3.2-3 (7/2000)
- VOC - 0.03 lb/MMBtu from AP-42, Table 3.2-3 (7/2000)
- Opacity - 06-096 CMR 101

The BPT emission limits for Generator #1 are the following (06-096 CMR 115, BACT):

<u>Unit</u>	<u>PM (lb/hr)</u>	<u>PM<sub>10</sub> (lb/hr)</u>	<u>SO<sub>2</sub> (lb/hr)</u>	<u>NO<sub>x</sub> (lb/hr)</u>	<u>CO (lb/hr)</u>	<u>VOC (lb/hr)</u>
Generator #1 (0.6 MMBtu/hr)	0.03	0.03	0.01	1.34	2.19	0.02

Visible emissions from Generator #1 shall not exceed 10% opacity on a 6-minute block average basis, except for no more than one (1) six (6) minute block average in a 3-hour period.

K. 40 CFR Part 60, Subpart JJJJ

The federal regulation 40 CFR Part 60, Subpart JJJJ, *Standards of Performance for Spark Ignition Internal Combustion Engines (SI ICE)* is applicable to the emergency engine listed above since the unit was ordered after June 12, 2006 and manufactured after January 1, 2009. By meeting the requirements of Subpart JJJJ, the unit also meets the requirements found in the *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*, 40 CFR Part 63, Subpart ZZZZ.

a. Emergency Definition:

Emergency stationary ICE means any stationary reciprocating internal combustion engine that meets all of the following criteria:

- (1) The stationary ICE is operated to provide electrical power or mechanical work during an emergency situation. Examples include stationary ICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary ICE used to pump water in the case of fire or flood, etc. There is no time limit on the use of emergency stationary ICE in emergency situations.
- (2) Paragraph (1) above notwithstanding, the emergency stationary ICE may be operated for any combination of the purposes specified below for a maximum of 100 hours per calendar year:
  - (i) Maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

- (ii) Emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies, or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.
  - (iii) Periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.
- (3) Paragraphs (1) and (2) above notwithstanding, emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. These 50 hours are counted as part of the 100 hours per calendar year for maintenance checks and readiness testing, emergency demand response, and periods of voltage deviation or low frequency, as provided in paragraph (2) above.

The 50 hours per calendar year for non-emergency situations cannot be used for peak shaving, non-emergency demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity, except if the following conditions are met:

- (i) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.
- (ii) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
- (iii) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
- (iv) The power is provided only to the facility itself or to support the local transmission and distribution system.
- (v) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

[40 CFR §60.4243(d) and §60.4248]

b. 40 CFR Part 60, Subpart JJJJ Requirements:

(1) Manufacturer Certification Requirement

The engine shall be certified by the manufacturer as meeting the emission standards for new nonroad spark ignition engines found in 40 CFR Part 60, Subpart JJJJ, Table 1.

(2) Non-Resettable Hour Meter Requirement

A non-resettable hour meter shall be installed and operated on the engine. [40 CFR §60.4237]

(3) Operation and Maintenance Requirement

The engine shall be operated and maintained according to the manufacturer's written instructions or procedures developed by Tex-Tech that are approved by the engine manufacturer. Tex-Tech may only change those settings that are permitted by the manufacturer. [40 CFR §60.4243]

(4) Annual Time Limit for Maintenance and Testing

As an emergency engine, the unit shall be limited to 100 hours/year for maintenance and testing. The emergency engine may operate up to 50 hours per year in non-emergency situations, but those 50 hours are included in the 100 hours allowed for maintenance and testing. The 50 hours for non-emergency use cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR §60.4243(d)]

(5) Recordkeeping

Tex-Tech shall keep records that include maintenance conducted on the engine and the hours of operation of the engine recorded through the non-resettable hour meter. Documentation shall include the hours spent for emergency operation, including what classified the operation as emergency and how many hours spent for non-emergency. If the engine is operated during a period of demand response or deviation from standard voltage or frequency, or to supply power during a non-emergency situation as part of a financial arrangement with another entity as specified in §60.4243(d)(3)(i), Tex-Tech shall keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes. [40 CFR §60.4245(b)]



L. Process Emissions Sources

Tex-Tech utilizes various dyes and chemicals in the production and treatment of their fabrics. An example listing of the chemicals used by Tex-Tech and the VOC content of the chemicals is given in the following table:

Chemical	Process	% VOC
Orco Brill Yellow	Dye	ND
Dye Assist	Dye	ND
Citric Acid	Dye	ND
Starpel FSO	Chemical Treatment	4.86
Scroop C	Chemical Treatment	0.05
Orco FP 140	Chemical Treatment	ND
Daikin 210	Chemical Treatment	ND
Startex 5446	Chemical Treatment	ND
Starpel 2727	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 rolling total.

Quantities of HAP in the coatings and dyes used by Tex-Tech are negligible.

M. 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.

N. General Process Emissions

Visible emissions from any general process source shall not exceed an 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.

O. Annual Emissions

1. Total Annual Emissions

Tex-Tech shall be restricted to the following annual emissions, based on a calendar year. The tons per year limits were calculated based on the following:

- Boiler #2 shall be subject to an annual heat input restriction of 42,000 MMBtu/hr based on firing propane and/or distillate fuel.
- Boiler #3 shall be subject to an annual biomass fuel usage restriction of 8175 ton/yr (based on biomass with a moisture content of 50%)
- Generator #1 shall not be operated for more than 100 hours of non-emergency operations
- Emission potentials from other propane fired equipment were based on 8760 hours/year of operation.

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

	PM	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC
Boiler #2	2.5	2.5	10.58	3.0	1.74	0.23
Boiler #3	7.36	7.36	0.92	7.36	7.36	0.63
Singer	0.88	0.88	0.01	0.94	0.54	0.07
Dryer/heat Setter #1	0.88	0.88	0.29	5.54	3.19	0.43
Dryer/heat Setter #2	0.88	0.88	0.29	6.10	3.52	0.47
Generator #1	0.01	0.01	0.01	0.07	0.11	0.01
Process Emissions	--	--	--	--	--	15.0
<b>Total TPY</b>	<b>12.51</b>	<b>12.51</b>	<b>12.09</b>	<b>23.01</b>	<b>16.46</b>	<b>16.84</b>

2. Greenhouse Gases

Greenhouse gases are considered regulated pollutants as of January 2, 2011, through ‘Tailoring’ revisions made to EPA’s *Approval and Promulgation of Implementation Plans*, 40 CFR Part 52, Subpart A, §52.21, *Prevention of Significant Deterioration of Air Quality* rule. Greenhouse gases, as defined in 06-096 CMR 100 (as amended), are the aggregate group of the following gases: carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. For licensing purposes, greenhouse gases (GHG) are calculated and reported as carbon dioxide equivalents (CO<sub>2</sub>e).

The quantity of CO<sub>2</sub>e emissions from this facility is less than 100,000 tons per year, based on the following:

- the facility's fuel use limits;
- worst case emission factors from the following sources: U.S. EPA's AP-42, the Intergovernmental Panel on Climate Change (IPCC), and 40 CFR Part 98, *Mandatory Greenhouse Gas Reporting*; and
- global warming potentials contained in 40 CFR Part 98.

No additional licensing actions to address GHG emissions are required at this time.

### III. AMBIENT AIR QUALITY ANALYSIS

The level of ambient air quality impact modeling required for a minor source shall be determined by the Department on a case-by case basis. In accordance with 06-096 CMR 115, an ambient air quality impact analysis is not required for a minor source if the total licensed annual emissions of any pollutant released do not exceed the following levels and there are no extenuating circumstances:

<b>Pollutant</b>	<b>Tons/Year</b>
PM <sub>10</sub>	25
SO <sub>2</sub>	50
NO <sub>x</sub>	50
CO	250

The total licensed annual emissions for the facility are below the emission levels contained in the table above and there are no extenuating circumstances; therefore, an ambient air quality impact analysis is not required as part of this license.

### 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, and
- 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-H-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 (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-A. [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 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 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 emissions 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) Boiler #2

#### A. Fuel

- Boiler #2 is licensed to fire propane and distillate fuel.
- Total heat input for Boiler #2 shall not exceed 42,000 MMBtu/yr based on a 12-month rolling total basis. [06-096 CMR 115, BPT]
- The following shall be used to determine the monthly heat input into Boiler #2:

$$\left(\frac{\text{gal dist. fuel}}{\text{month}}\right)\left(\frac{0.14\text{MMBtu}}{\text{gal distillate fuel}}\right) + \left(\frac{\text{gal. propane}}{\text{month}}\right)\left(\frac{0.0905\text{MMBtu}}{\text{gal. propane}}\right) = \frac{\text{MMBtu heat input to boiler}}{\text{month}}$$

- Boiler #2 is licensed to fire distillate fuel having a sulfur content of 0.5% or less by weight. Per 38 M.R.S.A. §603-A(2)(A)(3), as of July 1, 2018, no person shall import, distribute, or offer for sale any distillate fuel with a sulfur content greater than 0.0015% by weight (15 ppm). Therefore, beginning July 1, 2018, the distillate fuel purchased or otherwise obtained for use in Boiler #2 shall not exceed 0.0015% by weight (15 ppm).

5. Compliance shall be demonstrated by fuel records from the supplier showing the quantity, type, and the percent sulfur of the fuel delivered (if applicable). Records of annual fuel use and heat input shall be kept on a monthly and 12-month rolling total basis. [06-096 CMR 115, BPT]

- B. Emissions from Boiler #2 shall not exceed the following when firing propane:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Boiler #2	PM	0.05	06-096 CMR 115, BPT

- C. Emissions from Boiler #2 shall not exceed the following when firing propane [06-096 CMR 115, BPT]:

Emission Unit	PM (lb/hr)	PM <sub>10</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #2	0.73	0.73	0.01	2.1	1.21	0.16

- D. Visible emissions from Boiler #2 when firing propane shall not exceed 10 % opacity on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 3-hour period. [06-096 CMR 101]

- E. Emissions from Boiler #2 shall not exceed the following when firing distillate:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Boiler #2	PM	0.12	06-096 CMR 115, BPT

- F. Emissions from Boiler #2 shall not exceed the following when firing distillate [06-096 CMR 115, BPT]:

Emission Unit	PM (lb/hr)	PM <sub>10</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #2	1.75	1.75	7.35	2.09	0.52	0.02

- G. Visible emissions from Boiler #2 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 continuous 3-hour period. [06-096 CMR 101]

- H. Boiler MACT (40 CFR Part 63, Subpart JJJJJ) Requirements for Boiler #2 [incorporated under 06-096 CMR 115, BPT]

Boiler #2 is not subject to Boiler MACT as long Boiler #2 continues to meet the definition of a gas fired boiler. A "gas-fired boiler" is defined as any boiler that burns gaseous fuels not combined with any solid fuels and burns liquid fuel only during

periods of gas curtailment, gas supply interruption, startups, or periodic testing on liquid fuel. Periodic testing of liquid fuel shall not exceed a combined total of 48 hours during any calendar year. [40 CFR Part 63.11237]

If Boiler #2 no longer meets the definition of a gas fired boiler, Tex-Tech must conduct a tune up and an energy assessment within 180 days of the effective date of the fuel switch. Notification of such changes must be submitted according to 40 CFR §63.11225(g). [40 CFR §63.11210(h)]

(17) **Boiler #3**

A. Fuel

1. Boiler #3 is licensed to fire biomass.
2. Total fuel use for Boiler #3 shall be limited to 8175 tons/year of biomass based on a 12 month rolling total basis.
3. Compliance shall be demonstrated by fuel records from the supplier showing the quantity, and type. Records of annual fuel use shall be kept on a monthly and 12-month rolling total basis. [06-096 CMR 115, BACT]

B. Emissions from Boiler #3 shall not exceed the following:

<u>Unit</u>	<u>Pollutant</u>	<u>lb/MMBtu</u>	<u>Origin and Authority</u>
Boiler #3	PM	0.2	A-473-71-G-R/A (5/27/2010), BACT

C. Emissions from Boiler #3 shall not exceed the following [A-473-71-G-R/A (5/27/2010), BACT ]:

<u>Emission Unit</u>	<u>PM (lb/hr)</u>	<u>PM<sub>10</sub> (lb/hr)</u>	<u>SO<sub>2</sub> (lb/hr)</u>	<u>NO<sub>x</sub> (lb/hr)</u>	<u>CO (lb/hr)</u>	<u>VOC (lb/hr)</u>
Boiler #3	1.7	1.7	0.2	1.7	1.7	0.2

D. Visible Emissions

Visible emissions from Boiler #3 shall not exceed 20% opacity on a six (6) minute block average basis, except for no more than two (2) six (6) minute block averages in a 3-hour period. [06-096 CMR 101 and 06-096 CMR 115, BACT]



(18) **Singer & Dryer/Heat Setters #1 & #2**

A. Emissions from the Dryer Heat Setters #1 & #2 shall not exceed the following when firing propane:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Dryer/Heat Setter #1	PM	0.02	A-473-71-D-R (4/25/2005), BPT
Dryer/Heat Setter #2	PM	0.02	A-473-71-D-R (4/25/2005), BPT

B. Emissions from the Singer and Dryer/Heat Setters #1 & #2 shall not exceed the following [06-096 CMR 115, BPT]:

Emission Unit	PM (lb/hr)	PM <sub>10</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Singer	0.2	0.2	0.01	0.22	0.12	0.02
Dryer/Heat Setter #1	0.2	0.2	0.06	1.26	0.73	0.10
Dryer/Heat Setter #2	0.2	0.2	0.07	1.39	0.80	0.11

C. Visible emissions from the Singer, the Dryer/Heat Setter #1 and the Dryer/Heat Setter #2 stacks shall each not exceed 10 % opacity on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 3-hour period. [06-096 CMR 101]

(19) **Generator #1**

A. Generator #1 shall be limited to 100 hours of operation per calendar year, excluding operating hours during emergency situations. [06-096 CMR 115, BACT]

B. Emissions Generator #1 shall not exceed the following [06-096 CMR 115, BACT]:

Unit	PM (lb/hr)	PM <sub>10</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator #1 (0.6 MMBtu/hr) propane	0.03	0.03	0.01	1.34	2.19	0.02

C. Visible Emissions

Visible emissions from Generator #1 shall not exceed 10 % opacity on a 6-minute block average basis, except for no more than one (1) six (6) minute block average in a 3-hour period. [06-096 CMR 115, BACT]

D. Generator #1 shall meet the applicable requirements of 40 CFR Part 60, Subpart JJJJ, including the following:

1. Manufacturer Certification

The engine shall be certified by the manufacturer as meeting the emission standards for new nonroad spark ignition engines found in 40 CFR Part 60, Subpart JJJJ, Table 1.

2. Non-Resettable Hour Meter

A non-resettable hour meter shall be installed and operated on the engine. [40 CFR §60.4237 and 06-096 CMR 115, BPT]

3. Annual Time Limit for Maintenance and Testing

a. As an emergency engine, the unit shall be limited to 100 hours/year for maintenance checks and readiness testing, emergency demand response, and periods of voltage or frequency deviation from standards. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, non-emergency demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity unless the conditions in §60.4243(d)(3)(i) are met). The limits are based on a calendar year. Compliance shall be demonstrated by records (electronic or written log) of all engine operating hours. [40 CFR §60.4243(d) and 06-096 CMR 115]

b. Tex-Tech shall keep records that include maintenance conducted on the engine and the hours of operation of the engine recorded through the non-resettable hour meter. Documentation shall include the hours spent for emergency operation, including what classified the operation as emergency and how many hours spent for non-emergency. If the engine is operated during a period of demand response or deviation from standard voltage or frequency, or to supply power during a non-emergency situation as part of a financial arrangement with another entity as specified in §60.4243(d)(3)(i), Tex-Tech shall keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes.

4. Operation and Maintenance

The engine shall be operated and maintained according to the manufacturer's written instructions or procedures developed by Tex-Tech that are approved by the engine manufacturer. Tex-Tech may only change those settings that are permitted by the manufacturer. [40 CFR §60.4243]

(20) **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 rolling total. [06-096 CMR 115, BPT]

(21) **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]

(22) 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 16 DAY OF September, 2016.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Marc Allen Robert Cone for  
PAUL MERCER, COMMISSIONER

**The term of this license shall be ten (10) years from the signature date above.**

[Note: If a complete renewal application, as determined by the Department, is submitted prior to expiration of this license, then pursuant to Title 5 M.R.S.A. §10002, all terms and conditions of the license shall remain in effect until the Department takes final action on the renewal of the license.]

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: April 13, 2015

Date of application acceptance: April 14, 2015

Date filed with the Board of Environmental Protection:

This Order prepared by Lisa P. Higgins, Bureau of Air Quality.

