



STATE OF MAINE  
DEPARTMENT OF ENVIRONMENTAL PROTECTION



PAUL R. LEPAGE  
GOVERNOR

PATRICIA W. AHO  
COMMISSIONER

**Lincoln Paper & Tissue, LLC**  
**Penobscot County**  
**Lincoln, Maine**  
**A-177-77-8-M**

**Departmental**  
**Findings of Fact and Order**  
**New Source Review**  
**NSR #8**

**FINDINGS OF FACT**

After review of the air emission license 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, Section 590, 06-096 CMR 115, the Maine Department of Environmental Protection (Department) finds the following facts:

**I. REGISTRATION**

**A. Introduction**

<b>FACILITY</b>	<b>Lincoln Paper &amp; Tissue LLC (LPT)</b>
<b>PART 70 LICENSE NUMBER</b>	A-177-70-J-R/A
<b>LICENSE TYPE</b>	06-096 CMR 115 New Source Review Amendment
<b>NAIC CODES</b>	322121
<b>NATURE OF BUSINESS</b>	Pulp & Paper industry
<b>FACILITY LOCATION</b>	Lincoln, Maine

**B. Amendment Description**

LPT has submitted an application to amend its Air Emissions License per 06-096 CMR 115 New Source Review requirements. The amendment is for the installation and operation of an emergency generator which will be used to provide emergency support for activities at the facility. The emergency generator is described in the table below:

**Emergency Generation Equipment**

<b>Equipment</b>	<b>Maximum Capacity (MMBtu/hr)</b>	<b>Power Output (kW)</b>	<b>Distillate Fuel Firing Rate (gal/hr)</b>	<b>Date of Manufacture</b>
Emergency Generator (TG-3)	2.6	250	19.1	1999

AUGUSTA  
17 STATE HOUSE STATION  
AUGUSTA, MAINE 04333-0017  
(207) 287-7688 FAX: (207) 287-7826  
RAY BLDG., HOSPITAL ST.

BANGOR  
106 HOGAN ROAD, SUITE 6  
BANGOR, MAINE 04401  
(207) 941-4570 FAX: (207) 941-4584

PORTLAND  
312 CANCO ROAD  
PORTLAND, MAINE 04103  
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE  
1235 CENTRAL DRIVE, SKYWAY PARK  
PRESQUE ISLE, MAINE 04769  
(207) 764-0477 FAX: (207) 760-3143

**C. Application Classification**

This amendment will increase emissions by less than 4 ton/year for each single pollutant and less than 8 ton/year for all pollutants combined. Therefore, this modification is determined to be a minor revision and has been processed as such.

Since the emergency generator is not currently licensed, all criteria pollutants are subject to Best Available Control Technology (BACT) requirements. An application to incorporate the requirements of this amendment into the Part 70 air emission license shall be submitted no later than 12 months from commencement of the requested operation.

**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 06-096 CMR 100. BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

**B. Emergency Generator (TG-3)**

LPT is adding Emergency Generator (TG-3) for back-up power to protect equipment in case of a power outage. The unit is a Caterpillar Model 3306 (250 kW) and was manufactured in 1999 with a maximum heat input rating of 2.6 MMBtu/hr firing distillate fuel.

**1. BACT Findings**

The BACT emission limits for the generator are based on the following:

- PM/PM<sub>10</sub> - 0.12 lb/MMBtu from 06-096 CMR 115, BACT
- SO<sub>2</sub> - combustion of distillate fuel with a maximum sulfur content not to exceed 15 ppm (0.0015% sulfur by weight)
- NO<sub>x</sub> - 4.4 lb/MMBtu from AP-42 dated 10/96
- CO - 0.95 lb/MMBtu from AP-42 dated 10/96
- VOC - 0.35 lb/MMBtu from AP-42 dated 10/96

Opacity - 06-096 CMR 101

The BACT emission limits for the generator are the following:

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)
Emergency Generator (TG-3) (2.6 MMBtu/hr) Distillate fuel	0.3	0.3	0.2	11.4	2.5	0.9

Visible emissions from the distillate fuel-fired Emergency Generator (TG-3) shall not exceed 20% opacity on a 6-minute block average, except for no more than two (2) six (6) minute block averages in a 3-hour period.

2. 40 CFR Part 63, Subpart ZZZZ

The federal regulation 40 CFR Part 63, Subpart ZZZZ, *National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines* is applicable to the emergency generator listed above. The unit is considered an existing, emergency stationary reciprocating internal combustion engine and is not subject to New Source Performance Standards regulations. EPA's August 9, 2010 memo (*Guidance Regarding Definition of Residential, Commercial, and Institutional Emergency Stationary RICE in the NESHAP for Stationary RICE*) specifically does not exempt these units from the federal requirements.

a. Emergency Definition:

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

- (1) The stationary RICE is operated to provide electrical power or mechanical work during an emergency situation. Examples include stationary RICE 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 RICE used to pump water in the case of fire or flood, etc. There is no time limit on the use of emergency stationary RICE in emergency situations.
- (2) Paragraph (1) above notwithstanding, the emergency stationary RICE 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 RICE 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 (incorporated by reference, see §63.14), 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 RICE 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 provided in the following paragraphs:

- (i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:
  - (a) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.
  - (b) 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.

- (c) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
- (d) The power is provided only to the facility itself or to support the local transmission and distribution system.
- (e) 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.

Emergency Generator TG-3 shall be limited to the usage outlined in §63.6640(f) and therefore may be classified as an existing emergency stationary RICE as defined in 40 CFR Part 63, Subpart ZZZZ. Failure to comply with all of the requirements listed in §63.6640(f) may cause the engine to not be considered emergency engines and therefore subject to all the requirements for non-emergency engines.

b. 40 CFR Part 63, Subpart ZZZZ Requirements:

(1) Operation and Maintenance Requirements

	<b>Operating Limitations (40 CFR §63.6603(a) and Table 2(d))</b>
Compression ignition (distillate fuel) unit:  <b>Emergency Generator TG-3</b>	- Change oil and filter every 500 hours of operation or annually, whichever comes first;  - Inspect the air cleaner every 1000 hours of operation or annually, whichever comes first, and replace as necessary; and  - Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

The generator shall be operated and maintained according to the manufacturer's emission-related written instructions or LPT shall develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR §63.6625(e)]

(2) Optional Oil Analysis Program

LPT has the option of utilizing an oil analysis program which complies with the requirements of §63.6625(i) in order to extend the specified oil change requirement. If this option is used, LPT must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR §63.6625(i)]

(3) Non-Resettable Hour Meter Requirement

A non-resettable hour meter shall be installed and operated on the generator. [40 CFR §63.6625(f)]

(4) Startup Idle and Startup Time Minimization Requirements

During periods of startup the facility must minimize the engine's time spent at idle and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR §63.6625(h) & 40 CFR Part 63, Subpart ZZZZ Table 2d]

(5) Annual Time Limit for Maintenance and Testing

The generator 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 §63.6640(f)(4)(ii) are met). [40 CFR §63.6640(f)]

(6) Recordkeeping

LPT shall keep records that include maintenance conducted on the Emergency Generator TG-3 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 generator 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 §63.6640(f)(4)(ii), LPT shall keep records of the notification of the emergency situation, and the date, start time, and end time of generator operation for these purposes. [40 CFR §63.6655(e) and (f)]

- (7) Requirements for Demand Response Availability Over 15 Hours Per Year (and greater than 100 brake hp)

If LPT operates or is contractually obligated to be available for more than 15 hours per calendar year in a demand response program, during a period of deviation from standard voltage or frequency, or supplying power during a non-emergency situation as part of a financial arrangement with another entity as specified in §63.6640(f)(4)(ii), the facility shall submit an annual report containing the information in §63.6650(h)(1)(i) through (ix). The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year. The annual report must be submitted electronically using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) ([www.epa.gov/cdx](http://www.epa.gov/cdx)). However, if the reporting form is not available in CEDRI at the time that the report is due, the written report must be submitted to the following address:

Director, Office of Ecosystem Protection  
U.S. Environmental Protection Agency  
5 Post Office Square, Suite 100  
Boston, MA 02109-3912

[40 CFR §63.6650(h)]

3. Incorporation into the Part 70 Air Emission License

The requirements in this 06-096 CMR 115 New Source Review minor revision shall apply to the facility upon amendment issuance. Per *Part 70 Air Emission License Regulations*, 06-096 CMR 140 (as amended), Section 1(C)(8), for a modification that has undergone NSR requirements or been processed through 06-096 CMR 115, the source must then apply for an amendment to the Part 70 license within one year of commencing the proposed operations as provided in 40 CFR Part 70.5.

**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 Minor Revision, Air Emission License A-177-77-8-M, subject to the conditions found in Air Emission License A-177-70-J-R/A, subsequent amendments, and in the following conditions.

Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

### SPECIFIC CONDITIONS

The following are new conditions:

(1) **Emergency Generator (TG-3)**

- A. The Emergency Generator (TG-3) shall be limited to 100 hours of operation per calendar year, excluding operating hours during emergency situations. [06-096 CMR 115]
- B. The fuel sulfur content for the distillate fuel fired in Emergency Generator (TG-3) shall be limited to 0.0015% sulfur by weight. Compliance shall be demonstrated by fuel records from the supplier documenting the type of fuel delivered and the sulfur content of the fuel. [06-096 CMR 115, BACT]
- C. Emissions from Emergency Generator (TG-3) 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)
Emergency Generator (TG-3) (2.6 MMBtu/hr)	0.3	0.3	0.2	11.4	2.5	0.9

D. Visible Emissions

Visible emissions from the distillate fuel-fired Emergency Generator (TG-3) shall not exceed 20% opacity on a 6 minute block average, except for no more than two (2) six (6) minute block averages in a 3 hour period. [06-096 CMR 101]

- E. The Emergency Generator (TG-3) shall meet the applicable requirements of 40 CFR Part 63, Subpart ZZZZ, including the following:

1. LPT shall meet the following operational limitations for the compression ignition Emergency Generator (TG-3):
  - a. Change the oil and filter annually,
  - b. Inspect the air cleaner annually and replace as necessary, and
  - c. Inspect the hoses and belts annually and replace as necessary.

A log shall be maintained documenting compliance with the operational limitations.

[40 CFR §63.6603(a) and Table 2(d); and 06-096 CMR 115, BACT]

2. Oil Analysis Program Option

LPT has the option of utilizing an oil analysis program which complies with the requirements of §63.6625(i) in order to extend the specified oil change requirement. If this option is used, LPT must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR §63.6625(i)]

3. Non-Resettable Hour Meter

A non-resettable hour meter shall be installed and operated on Emergency Generator (TG-3). [40 CFR §63.6625(f)]

4. Maintenance, Testing, and Non-Emergency Operating Situations

- a. The generator 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 to supply power as part of a financial arrangement with another entity unless the conditions in §63.6640(f)(4)(ii) are met). These limits are based on a calendar year. Compliance shall be demonstrated by a written log of all generator operating hours. [40 CFR §63.6640(f) and 06-096 CMR 115]
- b. LPT shall keep records that include maintenance conducted on the generator 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 generator 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 §63.6640(f)(4)(ii), LPT shall keep records of the notification of the emergency situation, and the date, start time, and end time of generator operation for these purposes. [40 CFR §63.6655(e) and (f)]

5. Operation and Maintenance

Emergency Generator (TG-3) shall be operated and maintained according to the manufacturer's emission-related written instructions or LTP shall develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR §63.6625(e)]

6. Startup Idle and Startup Time Minimization

During periods of startup the facility must minimize the engine's time spent at idle and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR §63.6625(h) & 40 CFR Part 63, Subpart ZZZZ Table 2d]

7. Requirements For Demand Response Availability Over 15 Hours Per Year (and greater than 100 brake hp):

If LPT operates or is contractually obligated to be available for more than 15 hours per calendar year in a demand response program, during a period of deviation from standard voltage or frequency, or supplying power during a non-emergency situation as part of a financial arrangement with another entity as specified in §63.6640(f)(4)(ii), the facility shall submit an annual report containing the information in §63.6650(h)(1)(i) through (ix). The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year. The annual report must be submitted electronically using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) ([www.epa.gov/cdx](http://www.epa.gov/cdx)). However, if the reporting form is not

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available in CEDRI at the time that the report is due, the written report must be submitted to the following address:

Director, Office of Ecosystem Protection  
U.S. Environmental Protection Agency  
5 Post Office Square, Suite 100  
Boston, MA 02109-3912

[40 CFR §63.6650(h)]

- (2) LPT shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard (38 M.R.S.A. §605-C).
- (3) LPT shall submit an application to incorporate this minor revision into the Part 70 air emission license no later than 12 months from commencement of the requested operation. [06-096 CMR 140, Section 1(C)(8)]

DONE AND DATED IN AUGUSTA, MAINE THIS 29 DAY OF December, 2014.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Marc Allen Robert Core for  
PATRICIA W. AHO, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: December 15, 2014

Date of application acceptance: December 22, 2014

Date filed with the Board of Environmental Protection:

This Order prepared by Edwin Cousins, Bureau of Air Quality

