



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION



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GOVERNOR

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**St. Mary's Regional Medical Center
Androscoggin County
Lewiston, Maine
A-146-71-Q-R/A (SM)**

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

FINDINGS OF FACT

After review of the air emission license renewal and amendment 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

St. Mary's Regional Medical Center (St. Mary's) has applied to renew their Air Emission License permitting the operation of emission sources associated with their healthcare facility.

St. Mary's has also requested an amendment to their license in order to add a cogeneration unit to the d'Youville Pavilion and replace the natural gas fired emergency generator currently at the Maison Marcotte building with a distillate fuel fired unit.

The equipment addressed in this license is located at 91 Campus Ave., Lewiston, Maine.

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

B. Emission Equipment

The following equipment is addressed in this air emission license:

Boilers

<u>Equipment</u>	<u>Maximum Capacity (MMBtu/hr)</u>	<u>Maximum Firing Rate</u>	<u>Fuel Type, % sulfur</u>	<u>Date of Manuf.</u>	<u>Stack #</u>
Central Plant Boiler #1	6.1	43.7 gal/hr	Distillate Fuel, 0.5%	2000	1
		5945 scf/hr	Natural Gas, negl.		
Central Plant Boiler #2	14.3	102 gal/hr	Distillate Fuel, 0.5%	2000	1
		13872 scf/hr	Natural Gas, negl.		
Central Plant Boiler #3	14.3	102 gal/hr	Distillate Fuel, 0.5%	2000	1
		13872 scf/hr	Natural Gas, negl.		
Central Plant Boiler #4	14.3	102 gal/hr	Distillate Fuel, 0.5%	2000	1
		13872 scf/hr	Natural Gas, negl.		
d'Youville Boiler #1	3.35	24 gal/hr	Distillate Fuel, 0.5%	2010	2
		3252 scf/hr	Natural Gas, negl.		
d'Youville Boiler #2	3.35	24 gal/hr	Distillate Fuel, 0.5%	2010	3
		3252 scf/hr	Natural Gas, negl.		

Generators

<u>Equipment</u>	<u>Maximum Capacity (MMBtu/hr)</u>	<u>Power Output KW</u>	<u>Maximum Firing Rate</u>	<u>Fuel Type, % sulfur</u>	<u>Date of Manuf.</u>
Central Plant Generator #1	7.8	800	56.9 gal/hr	Distillate Fuel, 0.5%	2000
Central Plant Generator #2	7.8	800	56.9 gal/hr	Distillate Fuel, 0.5%	2000
d'Youville Pavilion Generator	1.46	150	10.7 gal/hr	Distillate Fuel, 0.0015%	1984
Maison Marcotte Generator**	1.46	150	10.7 gal/hr	Distillate Fuel, 0.0015%	2015
d'Youville Pavilion Cogen. Unit***	1.46	150	1450 scf/hr	Natural Gas, negl.	2015

**New to this license; this unit replaces the Maison Marcotte Emer. Gen. listed in air emission license A-146-71-P-R

***New to this license

C. Definitions

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.

D. Application Classification

The modification of a minor source is considered a major or minor modification based on whether or not future emissions exceed the "Significant Emission" levels as defined in the Department's *Definitions Regulation*, 06-096 CMR 100 (as amended). The expected future emissions are as follows:

<u>Pollutant</u>	<u>Max. Future License (TPY)</u>	<u>Significant Emission Levels</u>
PM	9.3	100
PM ₁₀	9.3	100
SO ₂	25.5	100
NO _x	21.5	100
CO	14.5	100
VOC	1.2	50
CO ₂ e	< 100,000	100,000

This amendment will not increase emissions of any pollutant above the significant emission levels, therefore this application is determined to be a renewal with a minor modification and has been processed as such. The Department has determined the facility to be a minor source and the application has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 Code of Maine Rules (CMR) 115 (as amended). With the annual fuel limits on Central Plant Boilers #1-4, d'Youville Pavilion Boilers #1-2, and the d'Youville Pavilion Cogeneration Unit, and the annual operating limits on Central Plant Generators #1-2, the d'Youville Pavilion Generator, and the Maison Marcotte Generator, the facility is licensed below the major source thresholds for criteria pollutants and is considered a synthetic minor. With the annual fuel limits on Central Plant Boilers #1-4, d'Youville Pavilion Boilers #1-2, and the d'Youville Pavilion Cogeneration Unit, and the annual operating limits on Central Plant Generators #1-2, the d'Youville Pavilion Generator, and the Maison Marcotte Generator, the facility is licensed below the major source thresholds for hazardous air pollutants (HAP) and is considered an area source of HAP.

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

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. Central Plant Boilers #1-4

Central Plant Boilers #1-4 are all Scotch Marine boilers manufactured and installed in 2000; each is capable of firing either distillate fuel with a maximum sulfur content of 0.5% by weight or natural gas. Central Plant Boilers #1-4 are all operated for steam, heat, and sterilization of medical equipment and exhaust through a common stack.

Central Plant Boiler #1 has a heat input capacity of 6.1 MMBtu/hr with a firing rate of 5945 scf/hr for natural gas and 43.7 gal/hr for distillate fuel. Central Plant Boilers #2-4 have a heat input capacity of 14.3 MMBtu/hr with firing rates of 13872 scf/hr for natural gas and 102 gal/hr for distillate fuel.

1. BPT Findings

The BPT emission limits for Central Plant Boilers #1-4 when firing natural gas were based on the following:

PM/PM ₁₀	–	0.05 lb/MMBtu based on 06-096 CMR 115, BPT
SO ₂	–	0.6 lb/MMscf based on AP-42, Table 1.4-2, dated 7/98
NO _x	–	100 lb/MMscf based on AP-42, Table 1.4-1, dated 7/98
CO	–	84 lb/MMscf based on AP-42, Table 1.4-1, dated 7/98
VOC	–	5.5 lb/MMscf based on AP-42, Table 1.4-2, dated 7/98
Opacity	–	06-096 CMR 101

The BPT emission limits for Central Plant Boilers #1-4 when firing distillate fuel were based on the following:

- PM/PM₁₀ – 0.08 lb/MMBtu based on 06-096 CMR 115, BPT
- SO₂ – based on firing distillate fuel with a maximum sulfur content of 0.5% by weight
- NO_x – 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 – 0.34 lb/1000 gal for Central Plant Boiler #1 and 0.2 lb/1000 gal for Central Plant Boilers #2-4 based on AP-42, Table 1.3-3, dated 5/10
- Opacity – 06-096 CMR 101

The BPT emission limits for Central Plant Boilers #1-4 are the following:

<u>Unit</u>	<u>Pollutant</u>	<u>lb/MMBtu</u>
Central Plant Boilers #1-4 [each] (natural gas)	PM	0.05
Central Plant Boilers #1-4 [each] (distillate fuel)	PM	0.08

<u>Unit</u>	<u>PM (lb/hr)</u>	<u>PM₁₀ (lb/hr)</u>	<u>SO₂ (lb/hr)</u>	<u>NO_x (lb/hr)</u>	<u>CO (lb/hr)</u>	<u>VOC (lb/hr)</u>
Central Plant Boiler #1 (natural gas)	0.31	0.31	0.01	0.59	0.50	0.03
Central Plant Boiler #1 (distillate fuel)	0.49	0.49	3.08	0.87	0.22	0.01
Central Plant Boilers #2-4 [each] (natural gas)	0.71	0.71	0.01	1.39	1.17	0.08
Central Plant Boilers #2-4 [each] (distillate fuel)	1.14	1.14	7.20	2.04	0.51	0.02

Visible emissions from Central Plant Boilers #1-4 when firing natural gas shall not exceed 10% opacity on a 6-minute block average, except for no more than one (1) six (6) minute block average in a 3-hour period.

Visible emissions from Central Plant Boilers #1-4 when firing distillate fuel shall not exceed 20% opacity on a 6-minute block average, except for no more than one (1) six (6) minute block average in a 3-hour period.

St. Mary's shall be limited to 550,000 gallons/yr of distillate fuel in Central Plant Boilers #1-4 combined. Boilers #1-4 shall also be included in the facility-wide fuel limit of 200 MMscf/yr of natural gas.

Fuel Sulfur Content Requirements

Central Plant Boilers #1-4 are 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 Central Plant Boilers #1-4 shall not exceed a sulfur content of 0.0015% by weight (15 ppm).

2. Periodic Monitoring

Periodic monitoring for Central Plant Boilers #1-4 shall include recordkeeping to document fuel use both on a monthly and calendar year total basis. Documentation shall include the type and quantity of fuel used and sulfur content of the fuel, if applicable.

3. 40 CFR Part 60, Subpart Dc

Due to its size, Central Plant Boiler #1 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. Due to their size, Central Plant Boilers #2-4 are 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. The requirements for 40 CFR Part 60, Subpart Dc are listed below.

St. Mary's shall comply with all requirements of 40 CFR Part 60, Subpart Dc applicable to Central Plant Boilers #2-4 including, but not limited to, the following:

- a. St. Mary's shall maintain monthly records of fuel delivered and fuel combusted with fuel certifications. [40 CFR §60.48c(g)]
- b. St. Mary's shall submit to EPA and the Department semi-annual reports. These reports shall include the calendar dates covered in the reporting period and records of fuel supplier certifications. The semi-annual reports are due within 30 days of the end of each 6-month period.

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

U.S. Environmental Protection Agency, Region I
5 Post Office Square, Suite 100 (OES04-2)
Boston, MA 02109-3912
Attn: Air Compliance Clerk

4. 40 CFR Part 63, Subpart JJJJJ

Central Plant Boilers #1-4 are 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). Central Plant Boiler #1 is considered an existing gas-fired boiler rated less than 10 MMBtu/hr, and Central Plant Boilers #2-4 are considered existing gas-fired boilers rated greater 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]

Any boiler designed to burn fuels besides gaseous fuels prior to June 4, 2010 will be considered an existing boiler under this rule. A boiler which currently fires gaseous fuels, but converts back to firing another fuel (such as distillate fuel) in the future would become subject as an existing boiler at the time it is converted back to oil.

C. D'Youville Pavilion Boilers #1 and #2

D'Youville Pavilion Boilers #1 and #2 are Cleaver Brooks CB200 boilers manufactured and installed in 2010; each is capable of firing either distillate fuel with a maximum sulfur content of 0.5% by weight or natural gas. Both d'Youville Pavilion boilers are operated for steam and heat. D'Youville Pavilion Boilers #1 and #2 both have a heat input capacity of 3.35 MMBtu/hr with a firing rate of 3252 scf/hr for natural gas and 24 gal/hr for distillate fuel and exhaust through their own stacks.

1. BPT Findings

The BPT emission limits for d'Youville Pavilion Boilers #1 and #2 when firing natural gas were based on the following:

- PM/PM₁₀ – 0.05 lb/MMBtu based on 06-096 CMR 115, BPT
- SO₂ – 0.6 lb/MMscf based on AP-42, Table 1.4-2, dated 7/98
- NO_x – 100 lb/MMscf based on AP-42, Table 1.4-1, dated 7/98
- CO – 84 lb/MMscf based on AP-42, Table 1.4-1, dated 7/98
- VOC – 5.5 lb/MMscf based on AP-42, Table 1.4-2, dated 7/98
- Opacity – 06-096 CMR 101

The BPT emission limits for d'Youville Pavilion Boilers #1 and #2 when firing distillate fuel were based on the following:

- PM/PM₁₀ – 0.08 lb/MMBtu based on 06-096 CMR 115, BPT
- SO₂ – based on firing distillate fuel with a maximum sulfur content of 0.5% by weight
- NO_x – 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 – 0.34 lb/1000 gal based on AP-42, Table 1.3-3, dated 5/10
- Opacity – 06-096 CMR 101

The BPT emission limits for d'Youville Pavilion Boilers #1 and #2 are the following:

<u>Unit</u>	<u>Pollutant</u>	<u>lb/MMBtu</u>
d'Youville Pavilion Boilers #1-2 [each] (natural gas)	PM	0.05
d'Youville Pavilion Boilers #1-2 [each] (distillate fuel)	PM	0.08

<u>Unit</u>	<u>PM (lb/hr)</u>	<u>PM₁₀ (lb/hr)</u>	<u>SO₂ (lb/hr)</u>	<u>NO_x (lb/hr)</u>	<u>CO (lb/hr)</u>	<u>VOC (lb/hr)</u>
d'Youville Pavilion Boilers #1-2 [each] (natural gas)	0.17	0.17	0.01	0.33	0.27	0.02
d'Youville Pavilion Boilers #1-2 [each] (distillate fuel)	0.27	0.27	1.69	0.48	0.12	0.01

Visible emissions from d'Youville Pavilion Boilers #1 and #2 when firing natural gas shall not exceed 10% opacity on a 6-minute block average, except for no more than one (1) six (6) minute block average in a 3-hour period.

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

St. Mary's shall be limited to 150,000 gallons/yr of distillate fuel in d'Youville Pavilion Boilers #1-2 combined. D'Youville Pavilion Boilers #1-2 shall also be included in the facility-wide fuel limit of 200 MMscf/yr of natural gas.

Fuel Sulfur Content Requirements

D'Youville Pavilion Boilers #1 and #2 are 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 d'Youville Pavilion Boilers #1 and #2 shall not exceed a sulfur content of 0.0015% by weight (15 ppm).

2. Periodic Monitoring

Periodic monitoring for d'Youville Pavilion Boilers #1-2 shall include recordkeeping to document fuel use both on a monthly and calendar year total basis. Documentation shall include the type and quantity of fuel used and sulfur content of the fuel, if applicable.

3. 40 CFR Part 60, Subpart Dc

Due to their size, d'Youville Pavilion Boilers #1 and #2 are 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

D'Youville Pavilion Boilers #1-2 are 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). D'Youville Pavilion Boilers #1-2 are considered existing gas-fired boilers 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]

Any boiler designed to burn fuels besides gaseous fuels prior to June 4, 2010 will be considered an existing boiler under this rule. A boiler which currently fires gaseous fuels, but converts back to firing another fuel (such as distillate fuel) in the future would become subject as an existing boiler at the time it is converted back to oil.

D. Central Plant Generators #1-2 and d'Youville Pavilion Generator

St. Mary's operates Central Plant Generators #1-2 and the d'Youville Pavilion Generator as emergency generators. Central Plant Generators #1-2 and the d'Youville Pavilion Generator are generator sets with each gen set consisting of an engine and an electrical generator. Central Plant Generators #1-2 are both 800 kW Caterpillar 3412 models with a maximum heat input capacity of 7.8 MMBtu/hr, a firing rate of 56.9 gal/hr, and fire distillate fuel. The d'Youville Pavilion Generator is a 150 kW Kohler generator, with a maximum heat input capacity of 1.46 MMBtu/hr and a firing rate of 10.7 gal/hr for distillate fuel. Central Plant Generators #1-2 were both manufactured and installed in 2000 and the d'Youville Pavilion Generator was manufactured and installed in 1984. Central Plant Generators #1-2 draw fuel from a tank common to Central Plant Boilers #1-4, therefore they are licensed to fire distillate fuel with a maximum sulfur content of 0.5% by weight. The d'Youville Pavilion Generator shall fire distillate fuel with a maximum sulfur content of 0.0015% by weight.

Central Plant Generators #1-2 and the d'Youville Pavilion Generator were all ordered and installed before July 11, 2005, thus they are not subject to New Source Performance Standards 40 CFR Part 60, Subpart III, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*.

1. BPT Findings

The BPT emission limits for Central Plant Generators #1-2 are based on the following:

PM/PM ₁₀	- 0.12 lb/MMBtu from 06-096 CMR 103
SO ₂	- combustion of distillate fuel with a maximum sulfur content of 0.5% by weight
NO _x	- 3.2 lb/MMBtu from AP-42 dated 10/96
CO	- 0.85 lb/MMBtu from AP-42 dated 10/96
VOC	- 0.09 lb/MMBtu from AP-42 dated 10/96
Opacity	- 06-096 CMR 101

The BPT emission limits for the d'Youville Pavilion Generator are based on the following:

- PM/PM₁₀ - 0.12 lb/MMBtu from 06-096 CMR 103
- SO₂ - combustion of distillate fuel with a maximum sulfur content not to exceed 15 ppm (0.0015% sulfur by weight)
- NO_x - 4.41 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 BPT emission limits for Central Plant Generators #1-2 and the d'Youville Pavilion Generator are the following:

<u>Unit</u>	<u>Pollutant</u>	<u>lb/MMBtu</u>
Central Plant Generators #1-2 [each]	PM	0.12

<u>Unit</u>	<u>PM (lb/hr)</u>	<u>PM₁₀ (lb/hr)</u>	<u>SO₂ (lb/hr)</u>	<u>NO_x (lb/hr)</u>	<u>CO (lb/hr)</u>	<u>VOC (lb/hr)</u>
Central Plant Generators #1-2 [each]	0.94	0.94	4.01	24.96	6.63	0.70
d'Youville Pavilion Generator	0.18	0.18	0.01	6.44	1.39	0.51

Visible emissions from Central Plant Generators #1-2 and the d'Youville Pavilion Generator shall each 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.

Each of the emergency generators listed above shall be limited to 100 hours of operation per calendar year, excluding operating hours during emergency situations. There is no limit on emergency operation. Each emergency generator shall be equipped with a non-resettable hour-meter to record operating time. To demonstrate compliance with the operating hours limit, St. Mary's shall keep records of the total hours of operation and the hours of emergency operation for each unit.

Emergency generators are only to be operated for maintenance purposes and for situations arising from sudden and reasonably unforeseeable events beyond the control of the source. Emergency generators are not to be used for prime power when reliable offsite power is available; nor to operate or to be 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.

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 Central Plant Generators #1-2 and the d'Youville Pavilion Generator. The units are considered existing, emergency stationary reciprocating internal combustion engines at an area HAP source. However, they are considered exempt from the requirements of Subpart ZZZZ since they are categorized as a residential, commercial, or institutional emergency engine and they do not operate or are not 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).

Operation of emergency engines such that each exceeds 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), would cause the engine(s) to be subject to 40 CFR Part 63, Subpart ZZZZ, and require compliance with all applicable requirements.

Central Plant Generators #1-2 and the d'Youville Pavilion Generator shall be limited to the usage outlined in §63.6640(f) and therefore may be classified as 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 these engines to not be considered emergency engines and therefore be subject to all the requirements for non-emergency engines.

E. Maison Marcotte Generator

St. Mary's operates the Maison Marcotte Generator as an emergency generator. The Maison Marcotte Generator is a generator set consisting of an engine and an electrical generator. The Maison Marcotte Generator is a 150 kW Kohler model 150REOZJF generator with a maximum heat input capacity of 1.46 MMBtu/hr and is capable of firing distillate fuel at a rate of 10.7 gal/hr. The Maison Marcotte Generator was manufactured and installed in 2015 and replaces the natural gas fired Maison Marcotte Emergency Generator listed in St. Mary's previous license A-146-71-P-R, dated March 17, 2011.

1. BACT Findings

The BACT emission limits for the Maison Marcotte Generator are based on the following:

- PM/PM₁₀ - 0.12 lb/MMBtu from 06-096 CMR 103
- SO₂ - combustion of distillate fuel with a maximum sulfur content not to exceed 15 ppm (0.0015% sulfur by weight)
- NO_x - 4.41 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 Maison Marcotte Generator are the following:

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Maison Marcotte Gen.	0.18	0.18	0.01	6.44	1.39	0.51

Visible emissions from the Maison Marcotte Generator 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.

The Maison Marcotte Generator shall be limited to 100 hours of operation per calendar year, excluding operating hours during emergency situations. There is no limit on emergency operation. The Maison Marcotte Generator shall be equipped with a non-resettable hour-meter to record operating time. To demonstrate compliance with the operating hours limit, St. Mary's shall keep records of the total hours of operation and the hours of emergency operation for the Maison Marcotte Generator.

The Maison Marcotte Generator is only to be operated for maintenance purposes and for situations arising from sudden and reasonably unforeseeable events beyond the control of the source. The Maison Marcotte Generator is not to be used for prime power when reliable offsite power is available; nor to operate or to be 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.

2. 40 CFR Part 60, Subpart IIII

The federal regulation 40 CFR Part 60, Subpart IIII, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE)* is applicable to the Maison Marcotte Generator since the unit was ordered after July 11, 2005 and

manufactured after April 1, 2006. By meeting the requirements of Subpart III, 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. 40 CFR Part 60, Subpart III Requirements:

(1) Manufacturer Certification Requirement

The Maison Marcotte Generator shall be certified by the manufacturer as meeting the emission standards for new nonroad compression ignition engines found in 40 CFR §60.4202. [40 CFR §60.4205(b)]

(2) Ultra-Low Sulfur Fuel Requirement

The fuel fired in the Maison Marcotte Generator shall not exceed 15 ppm sulfur (0.0015% sulfur), except that any existing fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted. [40 CFR §60.4207(b)]

(3) Non-Resettable Hour Meter Requirement

A non-resettable hour meter shall be installed and operated on the Maison Marcotte Generator engine. [40 CFR §60.4209(a)]

(4) Operation and Maintenance Requirements

The Maison Marcotte Generator shall be operated and maintained according to the manufacturer's emission-related written instructions or procedures developed by St. Mary's that are approved by the engine manufacturer. St. Mary's may only change those emission-related settings that are permitted by the manufacturer. [40 CFR §60.4211(a)]

(5) Annual Time Limit for Maintenance and Testing

As an emergency engine, the Maison Marcotte 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 §60.4211(f)(3)(i) are met). [40 CFR §60.4211(f)]

(6) Initial Notification Requirement

No initial notification is required for emergency engines. [40 CFR §60.4214(b)]

(7) Recordkeeping

St. Mary's shall keep records that include maintenance conducted on the Maison Marcotte Generator and the hours of operation of the Maison Marcotte Generator recorded through the non-resettable hour meter. Documentation shall include the hours spent for emergency operation, including what classified the operation as emergency and the hours spent for non-emergency operation. If the Maison Marcotte 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 §60.4211(f)(3)(i), St. Mary's 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 §60.4214(b)]

(8) Annual Reporting Requirements for Demand Response Availability Over 15 Hours Per Year (for engines greater than 100 brake hp)

If the Maison Marcotte Generator at St. Mary's 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 §60.4211(f)(3)(i), the facility shall submit an annual report containing the information in §60.4214(d)(1)(i) through (vii). 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). 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:

U.S. Environmental Protection Agency, Region I
5 Post Office Square, Suite 100 (OES04-2)
Boston, MA 02109-3912
Attn: Air Compliance Clerk

[40 CFR §60.4214(d)]

F. D'Youville Pavilion Cogeneration Unit

St. Mary's operates the d'Youville Pavilion Cogeneration Unit for hot water and electricity generation. The d'Youville Pavilion Cogeneration Unit has an engine rated at 1.46 MMBtu/hr (150 kW) which fires natural gas at the rate of 1450 scf/hr. The

d'Youville Pavilion Cogeneration Unit is new to this license, and was manufactured and installed in 2015.

1. BACT Findings

The BACT emission limits for the d'Youville Pavilion Cogeneration Unit are based on the following:

- PM/PM₁₀ - 0.05 lb/MMBtu from 06-096 CMR 115, BACT
- SO₂ - 0.0006 lb/MMBtu from AP-42 Table 3.2-3, dated 7/00
- NO_x - 0.3 lb/MMBtu from 40 CFR Part 60, Subpart JJJJ
- CO - 0.6 lb/MMBtu from 40 CFR Part 60, Subpart JJJJ
- VOC - 0.0296 lb/MMBtu from AP-42 Table 3.2-3, dated 7/00
- Opacity - 06-096 CMR 101

The BACT emission limits for the d'Youville Pavilion Cogeneration Unit are the following:

<u>Unit</u>	<u>PM (lb/hr)</u>	<u>PM₁₀ (lb/hr)</u>	<u>SO₂ (lb/hr)</u>	<u>NO_x (lb/hr)</u>	<u>CO (lb/hr)</u>	<u>VOC (lb/hr)</u>
D'Youville Pavilion Cogeneration Unit	0.07	0.07	0.01	0.44	0.88	0.04

Visible emissions from the d'Youville Pavilion Cogeneration Unit shall not exceed 10% 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 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 d'Youville Pavilion Cogeneration Unit 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. 40 CFR Part 60, Subpart JJJJ Requirements:

(1) Manufacturer Certification Requirement

The d'Youville Pavilion Cogeneration Unit 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. [40 CFR §60.4243]

(2) Operation and Maintenance Requirement

The d'Youville Pavilion Cogeneration Unit engine shall be operated and maintained according to the manufacturer's written instructions or procedures developed by St. Mary's that are approved by the engine manufacturer. St. Mary's may only change those settings that are permitted by the manufacturer. [40 CFR §60.4243]

(3) Recordkeeping

St. Mary's shall keep records that include maintenance conducted on the d'Youville Pavilion Cogeneration Unit engine, the quantity of fuel fired in the engine, certification that the engine meets the emission standards found in 40 CFR Part 60, Subpart JJJJ, Table 1, and all notifications related to the engine, including supporting documentation. [40 CFR §60.4245(a)]

G. Fugitive Emissions

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed an opacity of 20%, 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.

H. General Process Emissions

Visible emissions from any general process source shall not exceed an opacity of 20% 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.

I. Annual Emissions

1. Total Annual Emissions

St. Mary's shall be restricted to the following annual emissions, based on a calendar year total. The tons per year limits were calculated based on a facility-wide fuel limit of 200 MMscf/yr of natural gas, an annual limit of 550,000 gal/yr of distillate fuel for Central Plant Boilers #1-4, an annual limit of 150,000 gal/yr of distillate fuel for d'Youville Pavilion Boilers #1-2, and 100 hour/yr non-emergency operating time for Central Plant Generators #1-2, the d'Youville Pavilion Generator, and the Maison Marcotte Generator:

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

	PM	PM ₁₀	SO ₂	NO _x	CO	VOC
Central Plant Boilers #1-4 (distillate fuel)	3.1	3.1	19.4	5.5	1.4	0.1
D'Youville Pavilion Boilers #1-2 (distillate fuel)	0.8	0.8	5.3	1.5	0.4	0.1
Natural Gas (all boilers)	4.8	4.8	0.1	9.4	7.9	0.5
Central Plant Generators #1-2	0.1	0.1	0.4	2.5	0.7	0.1
D'Youville Pavilion Generator	0.1	0.1	0.1	0.3	0.1	0.1
Maison Marcotte Generator	0.1	0.1	0.1	0.3	0.1	0.1
D'Youville Pavilion Cogen. Unit	0.3	0.3	0.1	2.0	3.9	0.2
Total TPY	9.3	9.3	25.5	21.5	14.5	1.2

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 (CO₂e).

The quantity of CO₂e emissions from this facility is less than 100,000 tons per year, based on the following:

- the facility's fuel use limits and non-emergency operating hours restrictions;
- 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

St. Mary's previously submitted an ambient air quality impact analysis for air emission license A-146-74-F-M/R (dated September 25, 1995) demonstrating that emissions from the facility, in conjunction with all other sources, do not violate Ambient Air Quality Standards (AAQS). An additional air quality impact analysis is not required for this renewal.

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-146-71-Q-R/A 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) Natural Gas Fuel Limit

St. Mary's shall be limited to 200 MMscf of natural gas, based on a calendar year total.
[06-096 CMR 115, BPT]

(17) **Central Plant Boilers #1-4**

A. Fuel

1. Central Plant Boilers #1-4 are each licensed to fire distillate fuel and natural gas. [06-096 CMR 115, BPT]
2. Total distillate fuel use for Central Plant Boilers #1-4 shall not exceed 550,000 gal/yr for all four boilers combined, based on a calendar year total. [06-096 CMR 115, BPT]
3. Prior to July 1, 2018, St. Mary's shall fire distillate fuel with a maximum sulfur content not to exceed 0.5% by weight in Central Plant Boilers #1-4. [06-096 CMR 115, BPT]
4. Beginning July 1, 2018, St. Mary's shall not purchase or otherwise obtain distillate fuel with a maximum sulfur content that exceeds 0.0015% by weight (15 ppm) for use in Central Plant Boilers #1-4. [06-096 CMR 115, BPT]
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 shall be kept on a monthly and calendar year total basis. [06-096 CMR 115, BPT]

B. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Central Plant Boilers #1-4 [each] (natural gas)	PM	0.05	06-096 CMR 115, BPT
Central Plant Boilers #1-4 [each] (distillate fuel)	PM	0.08	06-096 CMR 115, BPT

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

Emission Unit	PM (lb/hr)	PM₁₀ (lb/hr)	SO₂ (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Central Plant Boiler #1 (natural gas)	0.31	0.31	0.01	0.59	0.50	0.03
Central Plant Boiler #1 (distillate fuel)	0.49	0.49	3.08	0.87	0.22	0.01
Central Plant Boilers #2-4 [each] (natural gas)	0.71	0.71	0.01	1.39	1.17	0.08
Central Plant Boilers #2-4 [each] (distillate fuel)	1.14	1.14	7.20	2.04	0.51	0.02

D. Visible Emissions

1. Visible emissions from Central Plant Boilers #1-4 when firing natural gas shall not exceed 10% opacity on a six (6) minute block average, except for no more than one (1) six (6) minute block average in a continuous 3-hour period. [06-096 CMR 101]
2. Visible emissions from Central Plant Boilers #1-4 when firing distillate fuel shall not exceed 20% opacity on a six (6) minute block average, except for no more than one (1) six (6) minute block average in a continuous 3-hour period. [06-096 CMR 101]

E. Central Plant Boilers #1-4 are currently being operated as gas-fired boilers according to the definition in 40 CFR Part 63, Subpart JJJJJ and are thus exempt from that subpart. If Central Plant Boilers #1-4 are operated such that they no longer fit the definition of a gas-fired boiler per 40 CFR Part 63, Subpart JJJJJ, they will become subject to 40 CFR Part 63, Subpart JJJJJ and will be required to meet all applicable requirements of that subpart. [06-096 CMR 115, BPT]

F. St. Mary's shall comply with all requirements of 40 CFR Part 60, Subpart Dc applicable to Central Plant Boilers #2-4 including, but not limited to, the following:

1. St. Mary's shall maintain monthly records of fuel delivered and fuel combusted with fuel certifications. [40 CFR §60.48c(g)(2)]
2. St. Mary's shall submit to EPA and the Department semi-annual reports. These reports shall include the calendar dates covered in the reporting period and

records of fuel supplier certifications. The semi-annual reports are due within 30 days of the end of each 6-month period. [40 CFR §60.48c(j)]

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

U.S. Environmental Protection Agency, Region I
5 Post Office Square, Suite 100 (OES04-2)
Boston, MA 02109-3912
Attn: Air Compliance Clerk

(18) **D'Youville Pavilion Boilers #1-2**

A. Fuel

1. D'Youville Pavilion Boilers #1-2 are each licensed to fire distillate fuel and natural gas. [06-096 CMR 115, BPT]
2. Total distillate fuel use for d'Youville Pavilion Boilers #1-2 combined shall not exceed 150,000 gal/yr, based on a calendar year total. [06-096 CMR 115, BPT]
3. Prior to July 1, 2018, St. Mary's shall fire distillate fuel with a maximum sulfur content not to exceed 0.5% by weight in d'Youville Pavilion Boilers #1-2. [06-096 CMR 115, BPT]
4. Beginning July 1, 2018, St. Mary's shall not purchase or otherwise obtain distillate fuel with a maximum sulfur content that exceeds 0.0015% by weight (15 ppm) for use in d'Youville Pavilion Boilers #1-2. [06-096 CMR 115, BPT]
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 shall be kept on a monthly and calendar year total basis. [06-096 CMR 115, BPT]

B. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
D'Youville Pavilion Boilers #1-2 [each] (natural gas)	PM	0.05	06-096 CMR 115, BPT
D'Youville Pavilion Boilers #1-2 [each] (distillate fuel)	PM	0.08	06-096 CMR 115, BPT

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

Emission Unit	PM (lb/hr)	PM₁₀ (lb/hr)	SO₂ (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
D'Youville Pavilion Boilers #1-2 [each] (natural gas)	0.17	0.17	0.01	0.33	0.27	0.02
D'Youville Pavilion Boilers #1-2 [each] (distillate fuel)	0.27	0.27	1.69	0.48	0.12	0.01

D. Visible Emissions

1. Visible emissions from d'Youville Pavilion Boilers #1-2 when firing natural gas shall not exceed 10% opacity on a six (6) minute block average, except for no more than one (1) six (6) minute block average in a continuous 3-hour period. [06-096 CMR 101]
2. Visible emissions from d'Youville Pavilion Boilers #1-2 when firing distillate fuel shall not exceed 20% opacity on a six (6) minute block average, except for no more than one (1) six (6) minute block average in a continuous 3-hour period. [06-096 CMR 101]

E. D'Youville Pavilion Boilers #1-2 are currently being operated as gas-fired boilers according to the definition in 40 CFR Part 63, Subpart JJJJJ and are thus exempt from that subpart. If d'Youville Pavilion Boilers #1-2 are operated such that they no longer fit the definition of a gas-fired boiler per 40 CFR Part 63, Subpart JJJJJ, they will become subject to 40 CFR Part 63, Subpart JJJJJ and will be required to meet all applicable requirements of that subpart. [06-096 CMR 115, BPT]

(19) Central Plant Generators #1-2 and d'Youville Pavilion Generator

- A. Central Plant Generators #1-2 and the d'Youville Pavilion Generator, as emergency generators, shall be limited to 100 hours of operation per calendar year, excluding operating hours during emergency situations. [06-096 CMR 115, BPT]
- B. St. Mary's shall keep records that include maintenance conducted on Central Plant Generators #1-2 and the d'Youville Pavilion Generator and the hours of operation of each 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 the hours spent for non-emergency operation. [06-096 CMR 115, BPT]
- C. If Central Plant Generators #1-2 and the d'Youville Pavilion Generator are 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, St. Mary's shall keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes. [06-096 CMR 115, BPT]

- D. Central Plant Generators #1-2 draw from the same fuel tank as Central Plant Boilers #1-4, therefore the fuel sulfur content for Central Plant Generators #1-2 shall be limited to 0.5% sulfur by weight. The fuel sulfur content for the d'Youville Pavilion Generator 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, BPT]
- E. Prior to July 1, 2018, St. Mary's shall fire distillate fuel with a maximum sulfur content not to exceed 0.5% by weight in Central Plant Generators #1-2. [06-096 CMR 115, BPT]
- F. Beginning July 1, 2018, St. Mary's shall not purchase or otherwise obtain distillate fuel with a maximum sulfur content that exceeds 0.0015% by weight (15 ppm) for use in Central Plant Generators #1-2. [06-096 CMR 115, BPT]
- G. Emissions shall not exceed the following:

<u>Unit</u>	<u>Pollutant</u>	<u>lb/MMBtu</u>	<u>Origin and Authority</u>
Central Plant Generators #1-2 [each]	PM	0.12	06-096 CMR 103(2)(B)(1)(a)

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

<u>Unit</u>	<u>PM (lb/hr)</u>	<u>PM₁₀ (lb/hr)</u>	<u>SO₂ (lb/hr)</u>	<u>NO_x (lb/hr)</u>	<u>CO (lb/hr)</u>	<u>VOC (lb/hr)</u>
Central Plant Generators #1-2 [each]	0.94	0.94	4.01	24.96	6.63	0.70
d'Youville Pavilion Generator	0.18	0.18	0.01	6.44	1.39	0.51

- I. Visible emissions from Central Plant Generators #1-2 and the d'Youville Pavilion Generator shall each 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]
- J. Central Plant Generators #1-2 and the d'Youville Pavilion Generator are only to be operated for maintenance purposes and for situations arising from sudden and reasonably unforeseeable events beyond the control of the source. They are not to be used for prime power when reliable offsite power is available; nor to operate or to be

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. [06-096 CMR 115, BPT]

(20) **Maison Marcotte Generator**

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

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

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Maison Marcotte Gen.	0.18	0.18	0.01	6.44	1.39	0.51

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

D. The Maison Marcotte Generator shall meet the applicable requirements of 40 CFR Part 60, Subpart IIII, including the following:

1. **Manufacturer Certification**

The Maison Marcotte Generator shall be certified by the manufacturer as meeting the emission standards for new nonroad compression ignition engines found in §60.4202. [40 CFR §60.4205(b)]

2. **Ultra-Low Sulfur Fuel**

The fuel fired in the Maison Marcotte Generator shall not exceed 15 ppm sulfur (0.0015% sulfur), except that any existing fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted. Compliance with the fuel sulfur content limit shall be based on fuel records from the supplier documenting the type of fuel delivered and the sulfur content of the fuel. [40 CFR §60.4207(b) and 06-096 CMR 115, BACT]

3. **Non-Resettable Hour Meter**

A non-resettable hour meter shall be installed and operated on the Maison Marcotte Generator. [40 CFR §60.4209(a)]

4. **Annual Time Limit for Maintenance and Testing**

a. As an emergency engine, the Maison Marcotte 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 §60.4211(f)(3)(i) are met). These limits are based on a calendar year. Compliance shall be demonstrated by records (electronic or written log) of all engine operating hours. [40 CFR §60.4211(f) and 06-096 CMR 115]

- b. St. Mary's shall keep records that include maintenance conducted on the Maison Marcotte 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 the hours spent for non-emergency operation. If the Maison Marcotte 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 §60.4211(f)(3)(i), St. Mary's shall keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes.

5. Operation and Maintenance

The Maison Marcotte Generator shall be operated and maintained according to the manufacturer's emission-related written instructions or procedures developed by St. Mary's that are approved by the engine manufacturer. St. Mary's may only change those emission-related settings that are permitted by the manufacturer. [40 CFR §60.4211(a)]

6. Annual Reporting For Demand Response Availability Over 15 Hours Per Year (for engines greater than 100 brake hp)

If the Maison Marcotte Generator at St. Mary's 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 §60.4211(f)(3)(i), St. Mary's shall submit an annual report containing the information in §60.4214(d)(1)(i) through (vii). 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). 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:

U.S. Environmental Protection Agency, Region I
5 Post Office Square, Suite 100 (OES04-2)
Boston, MA 02109-3912
Attn: Air Compliance Clerk

[40 CFR §60.4214(d)]

(21) **D'Youville Pavilion Cogeneration Unit**

A. The d'Youville Pavilion Cogeneration Unit is licensed to fire natural gas and shall be included in the facility-wide fuel limit of 200,000,000 scf/yr of natural gas. [06-096 CMR 115, BACT]

B. Emissions shall not exceed the following:

<u>Unit</u>	<u>Pollutant</u>	<u>lb/MMBtu</u>	<u>Origin and Authority</u>
D'Youville Pavilion Cogeneration Unit	PM	0.05	06-096 CMR 115, BACT

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

<u>Unit</u>	<u>PM (lb/hr)</u>	<u>PM₁₀ (lb/hr)</u>	<u>SO₂ (lb/hr)</u>	<u>NO_x (lb/hr)</u>	<u>CO (lb/hr)</u>	<u>VOC (lb/hr)</u>
D'Youville Pavilion Cogeneration Unit	0.07	0.07	0.01	0.44	0.88	0.04

D. Visible emissions from the d'Youville Pavilion Cogeneration Unit shall not exceed 10% opacity on a six (6) minute block average, except for no more than two (2) six (6) minute block averages in a continuous 3-hour period. [06-096 CMR 115, BACT]

E. The d'Youville Pavilion Cogeneration Unit shall meet the applicable requirements of 40 CFR Part 60, Subpart JJJJ including, but not limited to, the following:

1. **Manufacturer Certification Requirement**

The d'Youville Pavilion Cogeneration Unit 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. [40 CFR §60.4243]

2. **Operation and Maintenance Requirement**

The d'Youville Pavilion Cogeneration Unit engine shall be operated and maintained according to the manufacturer's written instructions or procedures developed by St. Mary's that are approved by the engine manufacturer. St. Mary's

may only change those settings that are permitted by the manufacturer.
[40 CFR §60.4243]

3. Recordkeeping

St. Mary's shall keep records that include maintenance conducted on the d'Youville Pavilion Cogeneration Unit engine, the quantity of fuel fired in the engine, certification that the engine meets the emission standards found in 40 CFR Part 60, Subpart JJJJ, Table 1, and all notifications related to the engine, including supporting documentation. [40 CFR §60.4245(a)]

(22) **Fugitive Emissions**

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed an opacity of 20%, 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]

(23) **General Process Sources**

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

St. Mary's Regional Medical Center
Androscoggin County
Lewiston, Maine
A-146-71-Q-R/A (SM)

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

- (24) St. Mary's 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).

DONE AND DATED IN AUGUSTA, MAINE THIS 11 DAY OF December, 2015.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Marc Allen Robert Case for
AVERY T. DAY, ACTING 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: 10/22/2015

Date of application acceptance: 10/23/2015

Date filed with the Board of Environmental Protection:

This Order prepared by Jonathan E. Rice, Bureau of Air Quality.

