



DEPARTMENT ORDER

**Regional School Unit #14-
Windham Campus
Cumberland County
Windham, Maine
A-1051-71-D-A**

**Departmental
Findings of Fact and Order
Air Emission License
Amendment #2**

FINDINGS OF FACT

After review of the air emission license 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 (M.R.S.) § 344 and § 590, the Maine Department of Environmental Protection (Department) finds the following facts:

I. REGISTRATION

A. Introduction

Regional School Unit #14-Windham Campus (Windham) was issued Air Emission License A-1051-71-B-R on 11/20/2016, for the operation of emission sources associated with their educational facility. The license was subsequently amended on 5/24/2018 (A-1051-71-C-A).

Windham has requested an amendment to their license in order to replace Boilers #2 and #3 with new high efficiency units, to add propane as a backup fuel to Boilers #1-#7, and to remove distillate fuel as a fuel to Boilers #6 and #8. Additionally, the 12,000-gallon distillate fuel storage tank listed in license A-1051-B-R as the WPS Oil Tank has been removed and will no longer be addressed in this license.

The equipment addressed in this license amendment is located at 404-408 Gray Road, Windham, Maine.

B. Emission Equipment

The following equipment is addressed in this air emission license amendment:

Equipment Removed From Facility

Equipment	Max. Capacity (MMBtu/hr)	Maximum Firing Rate	Fuel Type, % sulfur	Date of Manuf.	Date of Install.	Stack #
Boiler #2	5.19	5087 scf/hr	Natural Gas, negligible	2002	2002	2
		36 gal/hr	Distillate Fuel, 0.5%			
Boiler #3	5.19	5087 scf/hr	Natural Gas, negligible	2002	2002	2
		36 gal/hr	Distillate Fuel, 0.5%			
WPS Oil Tank	12,000 Gallons					

Boilers

Equipment	Maximum Capacity (MMBtu/hr)	Maximum Firing Rate	Fuel Type, % sulfur	Installation Date	Stack #
WHS Boiler #1	2.84	2780 scf/hr	Natural Gas, negligible	2002	1
		19.6 gal/hr	Distillate Fuel, 0.0015%		
		31 gal/hr	Propane, negligible		
WHS Boiler #2A (New)	3.03	3031 scf/hr	Natural Gas, negligible	2019	2
		21 gal/hr	Distillate Fuel, 0.0015%		
		33.5 gal/hr	Propane, negligible		
WHS Boiler #3A (New)	3.03	3031 scf/hr	Natural Gas, negligible	2019	2
		21 gal/hr	Distillate Fuel, 0.0015%		
		33.5 gal/hr	Propane, negligible		
WMS Boiler #4	2.84	2780 scf/hr	Natural Gas, negligible	2003	3
		19.6 gal/hr	Distillate Fuel, 0.0015%		
		31 gal/hr	Propane, negligible		
WMS Boiler #5	2.84	2780 scf/hr	Natural Gas, negligible	2002	3
		19.6 gal/hr	Distillate Fuel, 0.0015%		
		31 gal/hr	Propane, negligible		
WPS Boiler #6	2.50	2450 scf/hr	Natural Gas, negligible	1989	4
		27.3 gal/hr	Propane, negligible		
WPS Boiler #7	2.0	1960 scf/hr	Natural Gas, negligible	2018	4A
		22.1 gal/hr	Propane, negligible		
WFA Boiler #8	1.14	1115 scf/hr	Natural Gas, negligible	2007	5

Windham may operate small stationary engines smaller than 0.5 MMBtu/hr. These engines are considered insignificant activities and are not required to be included in this license. However, they are still subject to applicable State and Federal regulations. More information regarding requirements for small stationary engines is available on the Department's website at the link below.

<http://www.maine.gov/dep/air/publications/docs/SmallRICEGuidance.pdf>

Additionally, Windham may operate portable engines used for maintenance or emergency-only purposes. These engines are considered insignificant activities and are not required to be included in this license. However, they may still be subject to applicable State and Federal regulations.

C. Definitions

Distillate Fuel means the following:

- Fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials (ASTM) 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.

Portable Engine means an internal combustion engine which is portable or transportable, meaning designed to be and capable of being carried or moved from one location to another. Indicia of transportability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform. This definition does NOT include engines which remain or will remain at a location (excluding storage locations) for more than 12 consecutive months or a shorter period of time for an engine located at a seasonal source. A location is any single site at a building, structure, facility, or installation. Any engine that replaces an engine at a location and that is intended to perform the same or similar function as the engine replaced will be included in calculating the consecutive time period.

D. Application Classification

All rules, regulations, or statutes referenced in this air emission license refer to the amended version in effect as of the date this license was issued.

The modification of a minor source is considered a major or minor modification based on whether or not expected emission increases exceed the "Significant Emission" levels as defined in the Department's *Definitions Regulation*, 06-096 Code of Maine Rules (C.M.R.) ch. 100. The emission increases are determined by subtracting the current licensed annual

emissions preceding the modification from the maximum future licensed annual emissions, as follows:

Pollutant	Current License (TPY)	Future License (TPY)	Net Change (TPY)	Significant Emission Levels
PM	2.8	6.4	3.6	100
PM ₁₀	2.8	6.4	3.6	100
SO ₂	16.8	0.3	-16.5	100
NO _x	12.2	20.5	8.3	100
CO	2.8	7.6	4.8	100
VOC	0.3	1.2	0.9	50

This modification is determined to be a minor modification and has been processed as such.

E. Facility Classification

With the annual operating hours restriction on the emergency generators, the facility is licensed as follows:

- As a synthetic minor source of air emissions, because Windham is subject to license restrictions that keep facility emissions below major source thresholds for criteria pollutants; and
- As an area source of hazardous air pollutants (HAP), because the licensed emissions are below the major source thresholds for 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 C.M.R. ch. 100. 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 C.M.R. ch. 100. BACT is a top-down approach to selecting air emission controls considering economic, environmental, and energy impacts.

B. Boilers #1, #4, #5, #6, and #7

Windham operates Boilers #1, #4, #5, #6, and #7 for heat and proposes to add propane as a backup fuel. The Boilers are rated at 2.84, 2.84, 2.84, 2.5, and 2.0 MMBtu/hr and were installed in 2002, 2003, 2002, 1989, and 2018, respectively.

1. BACT Findings

Windham submitted a BACT analysis for control of emissions from Boilers #1, #4, #5, #6, and #7 when firing propane.

a. Particulate Matter (PM, PM₁₀)

Windham has proposed the use of low-ash content fuel (propane) in the boilers and to ensure proper combustion by following maintenance practices recommended by the manufacturer. Additional add-on pollution controls are not economically feasible.

BACT for PM/PM₁₀ emissions from Boilers #1, #4, #5, #6, and #7 is the use of proper operation and maintenance and the emission limits listed in the tables below.

b. Sulfur Dioxide (SO₂)

Windham has proposed to fire propane. The use of this fuel results in minimal emissions of SO₂; Therefore, additional add-on pollution controls are not economically feasible.

BACT for SO₂ emissions from Boilers #1, #4, #5, #6, and #7 is the use of propane and the emission limits listed in the tables below.

c. Nitrogen Oxides (NO_x)

Windham considered several control strategies for the control of NO_x including Selective Catalytic Reduction (SCR), Selective Non-Catalytic Reduction (SNCR), water/steam injection, flue gas recirculation (FGR), the use of high efficiency boilers to reduce fuel usage, and use of a modulating burner system.

Both SCR and SNCR are technically feasible control technologies for minimizing NO_x. However, they have a negative environmental impact of emissions of unreacted ammonia. In addition, due to the initial capital cost and the annual operating costs, these systems are typically only considered cost effective for units larger than Boilers #1, #4, #5, #6, and #7.

Water/steam injection and FGR have similar NO_x reduction efficiencies. However, water/steam injection results in reduced boiler efficiency of approximately 5%.

The use of add on pollution controls are not economically feasible on boilers of this size; Therefore, BACT for NO_x emissions from Boilers #1, #4, #5, #6, and #7 is the use of good combustion practices and the emission limits listed in the tables below.

d. Carbon Monoxide (CO) and Volatile Organic Compounds (VOC)

Windham considered several control strategies for the control of CO and VOC including oxidation catalysts and thermal oxidizers.

Oxidation catalysts and thermal oxidizers both have high capital, maintenance, and operational costs considering the size of the boiler in question. These controls were determined to not be economically feasible.

BACT for CO and VOC emissions from Boilers #1, #4, #5, #6, and #7 is the use of good combustion practices and the emission limits listed in the tables below.

e. Emission Limits

The BACT emission limits for Boilers #1, #4, #5, #6, and #7 firing propane were based on the following:

Propane

- PM/PM₁₀ – 0.05 lb/MMBtu based on 06-096 C.M.R. ch. 115, BACT
- SO₂ – 0.054 lb/1000 gal based on AP-42 Table 1.5-1 dated 7/08
- NO_x – 13 lb/1000 gal based on AP-42, Table 1.5-1, dated 7/08
- CO – 7.5lb/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
- Visible Emissions – 06-096 C.M.R. ch. 115, BACT

The BACT emission limits for Boilers #1, #4, #5, #6 and #7 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)
Boiler #1 propane	0.14	0.14	Neg.	0.4	0.23	0.03
Boiler #4 propane	0.14	0.14	Neg.	0.4	0.23	0.03
Boiler #5 propane	0.14	0.14	Neg.	0.4	0.23	0.03
Boiler #6 propane	0.13	0.13	Neg.	0.36	0.2	0.03
Boiler #7 propane	0.1	0.1	Neg.	0.28	0.16	0.02

2. Visible Emissions

Visible emissions from each boiler firing propane shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BACT]

3. Periodic Monitoring

Periodic monitoring for each of the boilers shall include recordkeeping to document fuel use both on a monthly and calendar year total basis. Documentation shall include the type of fuel used and sulfur content of the fuel, if applicable.

4. New Source Performance Standards (NSPS): 40 C.F.R. Part 60, Subpart Dc

Due to the size of Boilers #1, #4, #5, #6, and #7, they are not subject to *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units* 40 C.F.R. Part 60, Subpart Dc for units greater than 10 MMBtu/hr manufactured after June 9, 1989. [40 C.F.R. § 60.40c]

5. National Emission Standards for Hazardous Air Pollutants (NESHAP): 40 C.F.R. Part 63, Subpart JJJJJ

Gas-fired boilers are exempt from 40 C.F.R. 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 total of 48 hours on each boiler during any calendar year. [40 C.F.R. § 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. Boilers #2A and #3A

Windham operates Boilers #2A and #3A for heat. The boilers are rated at 3.03 MMBtu/hr each and fire distillate fuel, propane, or natural gas. The boilers will be installed in 2019 and exhaust through a common stack formerly used by Boilers #2 and #3.

1. BACT Findings

Windham submitted a BACT analysis for control of emissions from Boilers #2A and #3A.

a. Particulate Matter (PM, PM₁₀)

Windham has proposed to burn only low-ash content fuels (natural gas, propane, and distillate fuel) in the boilers and to ensure proper combustion by following maintenance practices recommended by the manufacturer. Additional add-on pollution controls are not economically feasible.

BACT for PM/PM₁₀ emissions from Boilers #2A and #3A is the use of proper operation and maintenance and the emission limits listed in the tables below.

b. Sulfur Dioxide (SO₂)

Windham has proposed to fire only natural gas, propane, and distillate fuel with a sulfur content not to exceed 0.0015% by weight. The use of these fuels results in minimal emissions of SO₂; Therefore, additional add-on pollution controls are not economically feasible.

BACT for SO₂ emissions from Boilers #2A and #3A is the use of propane and ultra-low-sulfur distillate fuel and the emission limits listed in the tables below.

c. Nitrogen Oxides (NO_x)

Windham considered several control strategies for the control of NO_x including Selective Catalytic Reduction (SCR), Selective Non-Catalytic Reduction (SNCR), water/steam injection, flue gas recirculation (FGR), the use of high efficiency boilers to reduce fuel usage and use of a modulating burner system.

Both SCR and SNCR are technically feasible control technologies for minimizing NO_x. However, they have a negative environmental impact of emissions of unreacted ammonia. In addition, due to the initial capital cost and the annual operating costs, these systems are typically only considered cost effective for units larger than Boilers #2A and #3A.

Water/steam injection and FGR have similar NO_x reduction efficiencies. However, water/steam injection results in reduced boiler efficiency of approximately 5%.

The use of a high efficiency multi-pass heat exchanger in the boiler design will reduce the total amount of fuel used, thus reducing the total fuel burned and emissions produced.

The use of a modulating burner and a high efficiency heat exchanger system on Boilers #2A and #3A has been determined to be feasible and has been selected as part of the BACT strategy.

BACT for NO_x emissions from Boilers #2A and #3A is the use a modulating burner and a high efficiency heat exchanger system, and the emission limits listed in the tables below.

d. Carbon Monoxide (CO) and Volatile Organic Compounds (VOC)

Windham considered several control strategies for the control of CO and VOC including oxidation catalysts, thermal oxidizers, and use of a modulating burner system.

Oxidation catalysts and thermal oxidizers both have high capital, maintenance, and operational costs considering the size of the boilers in question. These controls were determined to not be economically feasible.

A modulating burner system varies the fuel and air admittance rates into the burner to optimize the air-to-fuel ratio. The use of a modulating burner system has been determined to be feasible and has been selected as part of the BACT strategy for Boilers #2A and #3A.

BACT for CO and VOC emissions from Boilers #2A and #3A is the use of a modulating burner system and the emission limits listed in the tables below.

e. Emission Limits

The BACT emission limits for Boilers #2A and #3A were based on the following:

Distillate Fuel

PM/PM ₁₀	– 0.08 lb/MMBtu based on 06-096 C.M.R. ch. 115, BACT
SO ₂	– based on firing distillate fuel with a maximum sulfur content of 0.0015% 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 1.3-1, dated 5/10
Visible Emissions	– 06-096 C.M.R. ch. 115, BACT

Natural Gas

- PM/PM₁₀ – 0.05 lb/MMBtu based on 06-096 C.M.R. ch. 115, BACT
- 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
- Visible Emissions – 06-096 C.M.R. ch. 115, BACT

Propane

- PM/PM₁₀ – 0.05 lb/MMBtu based on 06-096 C.M.R. ch. 115, BACT
- SO₂ – 0.054 lb/1000 gal based on AP-42 Table 1.5-1 dated 7/08
- NO_x – 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
- Visible Emissions – 06-096 C.M.R. ch. 115, BACT

The BACT emission limits for Boilers #2A and #3A are the following:

Unit	Pollutant	lb/MMBtu
Boiler #2A natural gas/propane	PM	0.05
Boiler #2A distillate fuel		0.08
Boiler #3A natural gas/propane	PM	0.05
Boiler #3A distillate fuel		0.08

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #2A distillate fuel	0.24	0.24	Neg.	0.43	0.11	0.01
Boiler #2A natural gas	0.15	0.15	Neg.	0.29	0.25	0.02
Boiler #2A propane	0.15	0.15	Neg.	0.43	0.25	0.03
Boiler #3A distillate fuel	0.24	0.24	Neg.	0.43	0.11	0.01
Boiler #3A natural gas	0.15	0.15	Neg.	0.29	0.25	0.02
Boiler #3A propane	0.15	0.15	Neg.	0.43	0.25	0.03

2. Visible Emissions

- a. Visible emissions from the common stack when either boiler is firing distillate fuel shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BACT]
- b. Visible emissions from the common stack when only one boiler is in operation firing natural gas or propane, or when both boilers are in operation firing natural gas or propane shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BACT]

3. Periodic Monitoring

Periodic monitoring for each boiler shall include recordkeeping to document fuel use both on a monthly and calendar year total basis. Documentation shall include the type of fuel used and sulfur content of the fuel, if applicable.

4. New Source Performance Standards (NSPS): 40 C.F.R. Part 60, Subpart Dc

Due to the size of Boilers #2A and #3A, they are not subject to *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units* 40 C.F.R. Part 60, Subpart Dc for units greater than 10 MMBtu/hr manufactured after June 9, 1989. [40 C.F.R. § 60.40c]

5. National Emission Standards for Hazardous Air Pollutants (NESHAP): 40 C.F.R. Part 63, Subpart JJJJJ

Gas-fired boilers are exempt from 40 C.F.R. 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 total of 48 hours on each boiler during any calendar year. [40 C.F.R. § 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. Fuel Cap

The annual facility wide boiler fuel cap established in license A-1051-71-A-N of 66,300 MMBtu per year of distillate fuel is not necessary to keep the facility a minor source due to the reduction of sulfur content in the fuel. Therefore, it will be removed.

E. Annual Emissions

Windham shall be restricted to the following annual emissions, based on a 12-month calendar year total. The tons per year limits were calculated based on the following:

- Operating WHS Generator #1 and WTP Generator #2 for 100 hrs/yr each;
- Operating each boiler for 8,760 hr/yr.

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
Boilers #1 - #8	6.2	6.2	0.2	19.8	7.4	1.0
WHS Generator #1	0.1	0.1	0.1	0.6	0.1	0.1
WTP Generator #2	0.1	0.1	Neg.	0.1	0.1	0.1
Total TPY	6.4	6.4	0.3	20.5	7.6	1.2

Pollutant	Tons/year
Single HAP	9.9
Total HAP	24.9

III. AMBIENT AIR QUALITY ANALYSIS

The level of ambient air quality impact modeling required for a minor source is determined by the Department on a case-by case basis. In accordance with 06-096 C.M.R. ch. 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:

Pollutant	Tons/Year
PM ₁₀	25
SO ₂	50
NO _x	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 amendment.

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 Amendment A-1051-71-D-A subject to the conditions found in Air Emission License A-1051-71-B-R, in amendment A-1051-71-C-A and the following conditions.

Severability. The invalidity or unenforceability of any provision of this License Amendment or part thereof shall not affect the remainder of the provision or any other provisions. This License Amendment 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 shall replace Condition (16) to Air Emission License Amendment A-1051-71-C-A:

(16) Boilers #1-#8

A. Fuel

1. Boilers #1-#5 are licensed to fire distillate fuel.
[06-096 C.M.R. ch. 115, BPT/BACT]
2. Boilers #1-#7 are licensed to fire propane.
[06-096 C.M.R. ch. 115, BACT]
3. Boilers #1-#8 are licensed to fire natural gas.
[06-096 C.M.R. ch. 115, BACT]
4. Beginning July 1, 2018, the facility shall not purchase or otherwise obtain distillate fuel with a maximum sulfur content that exceeds 0.0015% by weight (15 ppm).
[06-096 C.M.R. ch. 115, BPT]

Compliance shall be demonstrated by fuel records from the supplier showing the percent sulfur of the fuel delivered (if applicable). [06-096 C.M.R. ch. 115, BPT]

B. Emissions shall not exceed the following:

Unit	Fuel Type	Pollutant	lb/MMBtu	Origin and Authority
Boilers #2A and #3A	Natural gas/ Propane	PM	0.05	06-096 C.M.R. ch. 115, BACT
	Distillate Fuel	PM	0.08	

C. Emissions shall not exceed the following while burning distillate [06-096 C.M.R. ch. 115, BPT/BACT]:

Emission Unit	Fuel Type	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #1	Distillate	0.23	0.23	Neg	0.99	0.10	0.01
Boiler #2A	Distillate	0.24	0.24	Neg.	0.29	0.25	0.02
Boiler #3A	Distillate	0.24	0.24	Neg.	0.29	0.25	0.02
Boiler #4	Distillate	0.23	0.23	Neg	0.99	0.10	0.01
Boiler #5	Distillate	0.23	0.23	Neg	0.99	0.10	0.01

D. Emissions shall not exceed the following while burning propane [06-096 C.M.R. ch. 115, BACT]:

Emission Unit	Fuel Type	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #1	Propane	0.14	0.14	Neg.	0.40	0.23	0.03
Boiler #2A	Propane	0.15	0.15	Neg.	0.43	0.25	0.03
Boiler #3A	Propane	0.15	0.15	Neg.	0.43	0.25	0.03
Boiler #4	Propane	0.14	0.14	Neg.	0.40	0.23	0.03
Boiler #5	Propane	0.14	0.14	Neg.	0.40	0.23	0.03
Boiler #6	Propane	0.13	0.13	Neg.	0.36	0.20	0.03
Boiler #7	Propane	0.10	0.10	Neg.	0.28	0.16	0.02

E. Emissions shall not exceed the following while burning natural gas [06-096 C.M.R. ch. 115, BACT]:

Emission Unit	Fuel Type	PM (lb/hr)	PM₁₀ (lb/hr)	SO₂ (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #1	Natural Gas	0.14	0.14	Neg.	0.28	0.23	0.02
Boiler #2A	Natural Gas	0.15	0.15	Neg.	0.43	0.11	0.01
Boiler #3A	Natural Gas	0.15	0.15	Neg.	0.43	0.11	0.01
Boiler #4	Natural Gas	0.14	0.14	Neg.	0.28	0.23	0.02
Boiler #5	Natural Gas	0.14	0.14	Neg.	0.28	0.23	0.02
Boiler #6	Natural Gas	0.13	0.13	Neg.	0.24	0.20	0.01
Boiler #7	Natural Gas	0.10	0.10	Neg.	0.19	0.16	0.01
Boiler #8	Natural Gas	0.06	0.06	Neg.	0.11	0.09	0.01

F. Visible Emissions

- a. Visible emissions from the stack associated with a boiler firing distillate fuel shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BACT]
- b. Visible emissions from the stack associated with a single boiler firing natural gas or propane shall not exceed 10% opacity on a six-minute block average basis. On a common stack between two boilers, when only one boiler is in operation firing natural gas or propane, or when both boilers are in operation firing natural gas or propane, visible emissions from the common stack shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BACT]

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A-1051-71-D-A

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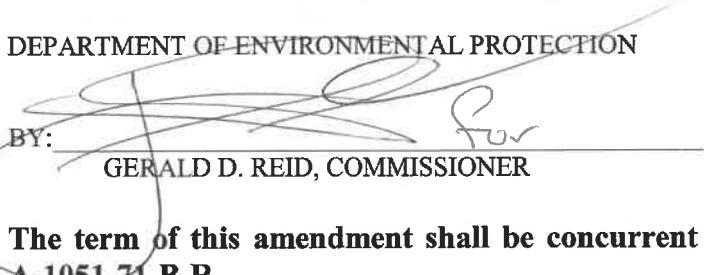
Departmental
Findings of Fact and Order
Air Emission License
Amendment #2

- E. When not operating in accordance with the definition of gas-fired boilers, Windham shall comply with all requirements of 40 C.F.R. Part 63, Subpart JJJJJJ applicable to Boilers #1-#5. [06-096 C.M.R. ch. 115, BPT]

DONE AND DATED IN AUGUSTA, MAINE THIS 25th DAY OF October, 2019.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:


GERALD D. REID, COMMISSIONER

The term of this amendment shall be concurrent with the term of Air Emission License A-1051-71-B-R.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 8/21/2019

Date of application acceptance: 8/22/2019

Date filed with the Board of Environmental Protection:

This Order prepared by Chris Ham, Bureau of Air Quality.

