

#### STATE OF MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION 17 STATE HOUSE STATION AUGUSTA, MAINE 04333-0017

#### DEPARTMENT ORDER

Naval Computer and Telecommunications Area Master Station Atlantic Detachment Cutler Washington County Cutler, Maine A-210-70-I-A Departmental Findings of Fact and Order Part 70 Air Emission License Amendment #4

## FINDINGS OF FACT

After review of the Part 70 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

FACILITY	Naval Computer and Telecommunications Area Master Station Atlantic Detachment (NCTAMS LANT DET)
LICENSE TYPE	Part 70 Significant License Modification
NAICS CODES	<ul><li>9711 National Security (Federal Facility)</li><li>4911 Electrical Power Generation</li><li>3443 Oil Storage Tanks</li></ul>
NATURE OF BUSINESS	Naval communications, electricity generation, space heating
FACILITY LOCATION	Route 191, Cutler, Maine

The Naval Computer and Telecommunications Area Master Station Atlantic Detachment (NCTAMS LANT DET, the Cutler Facility, or Cutler) uses diesel engines to generate electricity to operate communications equipment and provide energy for space heating.

Cutler has the potential to emit more than 100 tons per year (tpy) of nitrogen oxides (NO<sub>x</sub>); therefore, the source is classified as a major source for criteria pollutants.

Cutler does not have the potential to emit 10 tpy or more of a single hazardous air pollutant (HAP) or 25 tpy or more of combined HAP; therefore, the source is classified as an area source for HAP.

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Cutler has requested that the provisions of New Source Review (NSR) licenses A-210-77-3-A (9/20/2018) and A-210-77-5-A (5/18/2020) be incorporated into their Part 70 license. Cutler has also requested the removal of Boiler VLF-100-B#15 from their Part 70 license.

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## **B.** Emission Equipment

The following emission units are addressed by this Part 70 License:

	Max. Heat Input Capacity	Max. Firing Rate	Fuel Type,	Manuf.	Install.	
Equipment	(MMBtu/hr)	(gal/hr)	% sulfur	Date	Date	
VLF-103-B#7	3.98	29.0	Distillate fuel,	2012	6/2013	
VLF-103-B#8	3.98	29.0	0.0015%	2012	6/2013	
VLF-100-B#15 *	2.6	18.8	Distillate fuel, 0.0015%	2000	2000	

\* VLF-100-B#15 is no longer at the facility and has been removed from the Air Emission License.

#### **Non-Emergency Generators**

Equipment	Max. Heat Input Capacity (MMBtu/hr)	Output	Fuel Type, % sulfur	Mfr. Date	Install. Date
VLF-103-D#2	32.0	3000 kW		1972	1976
VLF-103-D#3	32.0	3000 kW	Distillate fuel	1972	1976
VLF-103-D#4	32.0	3000 kW	Distillate fuel, 0.0015%	1972	1976
VLF-103-D#5	32.0	3000 kW	0.0015%	1972	1976
VLF-103-D#6	8.0	750 kW		1996	1997

#### **Emergency Generators (Removed)**

Equipment	Maximum Input Capacity (MMBtu/hr)	Maximum Output Capacity	Maximum Firing Rate (gal/hr)	Fuel Type, % sulfur
VLF-MUSE-1A	8.2		57.4	
VLF-MUSE-1B	8.2		57.4	
VLF-MUSE-1C	8.2	Each unit:	57.4	
VLF-MUSE-1D	8.2		57.4	Distillate
VLF-MUSE-3A	8.2	840 kW	57.4	fuel,
VLF-MUSE-3B	8.2	(approx.	57.4	0.0015%
VLF-MUSE-3C	8.2	1170 hp)	57.4	
VLF-MUSE-3D	8.2		57.4	
VLF-MUSE-3E	8.2		57.4	

Boilers

Equipment	Maximum Input Capacity (MMBtu/hr)	Maximum Output Capacity	Maximum Firing Rate (gal/hr)	Fuel Type, % sulfur
VLF-MUSE-5A	8.2	Each unit:	57.4	
VLF-MUSE-5B	8.2		57.4	Distillate
VLF-MUSE-5C	8.2	840 kW	57.4	fuel,
VLF-MUSE-5D	8.2	(approx.	57.4	0.0015%
VLF-MUSE-14	8.2	1170 hp	57.4	

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#### 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.

#### **D.** Application Classification

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

Cutler has requested incorporation into the Part 70 Air License the relevant terms and conditions of New Source Review (NSR) licenses A-210-77-3-A issued September 20, 2018, and A-210-77-5-A issued May 18, 2020, pursuant to *Major and Minor Source Air Emission License Regulations*, 06-096 Code of Maine Rules (C.M.R.) ch. 115. The NSR license requirements result in significant changes to existing Part 70 monitoring, reporting, or record keeping requirements. Therefore, this license application was considered a Part 70 Significant License Modification and processed under *Part 70 Air Emission License Regulations*, 06-096 Code of Maine Rules (C.M.R.) ch. 140.

## II. BEST PRACTICAL TREATMENT (BPT) AND REASONABLY AVAILABLE CONTROL TECHNOLOGY (RACT) FOR NO<sub>x</sub> EMISSION STANDARDS

#### 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

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exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

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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 emission from the source being considered; and
- the economic feasibility for the type of establishment involved.

#### **B.** NSR License Descriptions

Below are descriptions of the two NSR licenses being incorporated into the Part 70 license as part of this amendment.

1. NSR License A-210-77-3-A (NSR #3)

The Department issued NSR License A-210-77-3-A on September 20, 2018. This license was issued to permit the replacement of the stacks and silencers for diesel engines VLF-103-D#2 through VLF-103-D#5, install crankcase ventilation systems on each of the engines, install diesel oxidation catalyst (DOC) units on engines VLF-103-D#2 through VLF-103-D#6, and include updated fuel sulfur requirements. This NSR also amended NSR A-210-77-1-A (12/29/2014) to correct the size of boilers VLF-103-B#7 and VLF-103-B#8, and NSR A-210-77-2-A (8/1/2014) to remove 14 MUSE Generators and associated fuel tanks from the NSR license.

2. NSR License A-210-77-5-A (NSR #5)

The Department issued NSR License A-210-77-5-A on May 18, 2020. This license was issued to revise previous and incorporate new NO<sub>x</sub> Reasonably Available Control Technology (RACT) limits for engines VLF-103-D#2, VLF-103-D#3, VLF-103-D#4, and VLF-103-D#5. NSR A-210-77-5-A also amended NSRs A-210-77-1-A (12/29/2014) and A-210-77-3-A (9/20/2018) to remove the restriction on concurrent operation of boilers VLF-103-B#7 and BLF-103-B#8, correct hourly CO emission limits for engine VLF-103-D#2 through VLF-103-D#6, and clarify limitations on concurrent operation of engines VLF-103-D#2 through VLF-103-D#5.

#### C. NO<sub>x</sub> RACT (Reasonably Available Control Technology)

Reasonably Available Control Technology for Facilities that Emit Nitrogen Oxides, 06-096 C.M.R. ch. 138 (NO<sub>x</sub> RACT) is applicable to sources that have the potential to emit quantities of NO<sub>x</sub> equal to or greater than 100 tons/year. Air Emission License

A-210-70-D-R issued to the facility on June 19, 2012, included NO<sub>x</sub> RACT requirements. These requirements were updated in amendments A-210-70-E-A (issued September 6, 2013) and A-210-70-F-A (issued August 3, 2015).

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On December 13, 2017, the Department issued an NOV to the Cutler Facility for failure of engines VLF-103-D#2 through VLF-103-D#5 to meet the NO<sub>x</sub> RACT limit of 3.2 lb/MMBtu as demonstrated by emission testing conducted on July 29 and 30, 2013; December 4, 2013; September 13, 2016; and December 6 and 7, 2016. Although compliance was demonstrated with the associated lb/hr emission limit, compliance could not be demonstrated with the lb/MMBtu emission limit. The Cutler Facility agreed to develop a path to compliance with NO<sub>x</sub> RACT by submitting an updated RACT plan to the Department.

NSR A-210-77-5-A, issued May 18, 2020, addressed the updated NO<sub>x</sub> RACT requirements. NO<sub>x</sub> RACT for engines VLF-103-D#2, VLF-103-D#3, VLF-103-D#4, and VLF-103-D#5 was determined to be maintaining ignition timing retard on each engine to minimize NO<sub>x</sub> emissions, minimizing the use of the engines by utilizing commercial power as the primary source of power for the facility whenever practicable, and NO<sub>x</sub> emission limits of 4.16 lb/MMBtu and 102.4 lb/hr. NO<sub>x</sub> RACT for engine VLF-103-D#6 was determined to be emission limits of 3.2 MMBtu/hr and 25.61 lb/hr. The NO<sub>x</sub> RACT requirements are incorporated in this amendment.

## **D.** Fuel Sulfur Content Requirements

Cutler is licensed to fire distillate fuel which, by definition, has a sulfur content of 0.5% or less by weight. Per 38 M.R.S. § 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, the distillate fuel purchased or otherwise obtained for use at this facility shall not exceed 0.0015% by weight (15 ppm).

## E. Boilers VLF-103-B#7, VLF-103-B#8, and VLF-100-B#15

Package boilers VLF-103-B#7 and VLF-103-B#8 were licensed in A-210-77-1 (12/29/2014) with a maximum heat input capacity of 3.0 MMBtu/hr each. In A-210-77-3-A (9/20/2018), the maximum heat input capacity of the boilers was corrected to 3.98 MMBtu/hr each combusting distillate fuel with a maximum sulfur content of 0.0015%, by weight. Fuel and emission limits were also adjusted accordingly.

Cutler has disabled and removed Boiler VLF-100-B#15 from the facility. The unit has been removed from the facility's Air Emission License.

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Emission Limits

1. Criteria Pollutants

For Boilers VLF-103-B#7 and VLF-103-B#8, a listing of potentially applicable emission standards, the origin and authority of the standards, and the applicable emission limits can be found below. Limits are on a 1-hour block average basis unless otherwise stated.

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Pollutant	Origin and Authority	Licensed Emission Limits
РМ	06-096 C.M.R. ch. 103, § (2)(B)(1)(a)	0.12 lb/MMBtu
r IVI	A-210-77-3-A (9/20/2018), BACT	0.48 lb/hr
PM <sub>10</sub>	A-210-77-3-A (9/20/2018), BACT	0.48 lb/hr
PM <sub>2.5</sub>	A-210-77-3-A (9/20/2018), BACT	0.48 lb/hr
SO <sub>2</sub>	A-210-77-3-A (9/20/2018), BACT	0.006 lb/hr (based on 0.0015% sulfur, by weight)
NO <sub>x</sub>	A-210-77-3-A (9/20/2018), BACT	0.58 lb/hr
CO	A-210-77-3-A (9/20/2018), BACT	0.15 lb/hr
VOC	A-210-77-3-A (9/20/2018), BACT	0.01 lb/hr

2. Visible Emissions

When only one of boilers VLF-103-B#7 and VLF-103-B#8 is operating, visible emissions from that boiler shall not exceed 20% opacity on a 6-minute block average basis.  $[06-096 \text{ C.M.R. ch. } 101, \S 3(A)(2)]$ 

When operating concurrently, visible emissions from boilers VLF-103-B#7 and VLF-103-B#8 shall not exceed 30% opacity on a 6-minute block average basis, except for periods of startup, shutdown, malfunction, or approved maintenance, during which times Cutler may demonstrate compliance through the following work practice standards in lieu of the numerical visible emissions standard. [06-096 C.M.R. ch. 101, § 3(D)(1)]

Work Practice Standards

- a. Maintain a log (written or electronic) of the date, time, and duration of all operating time, startups, shutdowns, and malfunctions for each boiler.
- b. Develop and implement a written startup and shutdown plan for each boiler.

c. The duration of unit startups, shutdowns, or malfunctions shall each not exceed one hour per occurrence.

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d. Operate each boiler at all times in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Department that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the unit.

## F. Non-Emergency Generators

Engines VLF-103-D#2, VLF-103-D#3, VLF-103-D#4, and VLF-103-D#5 are identical 3,000 kW units, each with a maximum heat input capacity of 32.0 MMBtu/hr. Engine VLF-103-D#6 is a 750 kW unit with a maximum heat input capacity of 8.0 MMBtu/hr. The non-emergency generators all fire distillate fuel with a maximum sulfur content of 0.0015%, by weight.

In response to a Consent Agreement with EPA dated April 12, 2017, NSR A-210-77-3-A (9/20/2018) authorized the installation of Diesel Oxidation Catalysts (DOC) and crankcase ventilation and filtration systems on VLF-103-D#2, VLF-103-D#3, VLF-103-D#4, VLF-103-D#5, and VLF-103-D#6, in accordance with the requirements of 40 C.F.R. Part 63, Subpart ZZZZ.

1. Emission Limits

Due to the installation of control equipment on the engines, pursuant to 40 C.F.R. Part 63, Subpart ZZZZ, the lb/hr limits for CO were revised in NSR A-210-77-3-A (9/20/2018), and corrected in NSR A-210-77-5-A (5/18/2020). The following are the CO emission limits for the engines.

Unit	<b>Emission Limit</b>	Emission Limit Basis	
VLF-103-D#2			
VLF-103-D#3	70% reduction	40 C E D = 8 (2 (CO2(2)) - 1)	
VLF-103-D#4	or	40 C.F.R. § 63.6603(a) and Table 2d(3)	
VLF-103-D#5	23 ppmvd @ 15% O <sub>2</sub>	Table $2d(3)$	
VLF-103-D#6			
VLF-103-D#2		70% of pre-controlled lb/hr	
VLF-103-D#3		limit	
VLF-103-D#4	8.16 lb/hr	A-210-77-5-A (5/18/2020),	
VLF-103-D#5		BPT	

Unit	<b>Emission Limit</b>	Emission Limit Basis
VLF-103-D#6	2.04 lb/hr	70% of pre-controlled lb/hr limit
		A-210-77-5-A (5/18/2020), BPT

Emission limits for PM,  $PM_{10}$ ,  $SO_2$ , and VOC are unchanged by this amendment. Emission limits for  $NO_x$  are addressed in the  $NO_x$  RACT section of this amendment.

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2. 40 C.F.R. Part 63, Subpart ZZZZ

National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, 40 C.F.R. Part 63, Subpart ZZZZ is applicable to engines VLF-103-D#2, VLF-103-D#3, VLF-103-D#4, VLF-103-D#5, and VLF-103-D#6. The units are considered existing, non-emergency stationary reciprocating internal combustion engines with output capacities of more than 500 brake HP at an area HAP source. The units are not subject to New Source Performance Standards regulations, which would supersede Subpart ZZZZ requirements, and 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. [40 C.F.R. § 63.6585]

A summary of the currently applicable federal 40 C.F.R. Part 63, Subpart ZZZZ requirements is listed below.

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a. Emission and Operating Limitations

	Emission Limits	
Classification	(except during startup)	Operating Requirements
Non- Emergency, non-black start CI Stationary RICE >500 HP at an area	Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd at 15% O <sub>2</sub> ; or Reduce CO emissions by 70% or more. [40 C.F.R. § 63.6603(a) and Table 2d(3)]	<ol> <li>Maintain the catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water from the pressure drop across the catalyst that was measured during the initial performance test.</li> <li>Maintain the temperature of the stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F.</li> <li>C.F.R. § 63.6603(a) and Table 2b(2)(b)]</li> </ol>
source of HAP VLF-103-D#2 VLF-103-D#3 VLF-103-D#4 VLF-103-D#5 VLF-103-D#6	The engines are equipped with diesel oxidation catalysts to comply with the emission limits.	<ul> <li>3. Minimize each engine's time spent at idle during startup and minimize each engine's startup time to a period needed for appropriate and safe loading for each engine. Startup time shall not exceed 30 minutes, after which time the non-startup emission limitations apply [40 C.F.R. Part 63, Subpart ZZZZ Table 2d]</li> <li>4. Fire diesel fuel with a sulfur content not to exceed 15 ppm sulfur (0.0015% sulfur) by weight. [40 C.F.R. § 63.6640(a)]</li> </ul>

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b. Crankcase Filtration

The Cutler facility was required to install closed crankcase ventilation systems, or other applicable control devices, according to the requirements of § 63.6625(g).

The Cutler facility installed crankcase ventilation and filtration systems on each of the applicable engines as part of the stack replacement and control installation project in order to comply with this requirement.

c. Continuous Parameter Monitoring System

The Cutler facility is required to install either a continuous emission monitoring system (CEMS) or a continuous parameter monitoring system (CPMS) to comply with the operational and emission requirements of 40 C.F.R. Part 63,

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Subpart ZZZZ, according to Table 5 of the subpart. [ 40 C.F.R. § 63.6625, and Table 5]

The Cutler facility complies with this requirement by utilizing CPMS on each engine which were installed with the controls.

The Cutler facility shall operate and maintain each CPMS according to the following:

- (1) The Cutler facility must prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined in § 63.6625(b)(1)(i-v).
- (2) Each CPMS shall be operated and maintained according to the procedures in the site-specific monitoring plan.
- (3) The CPMS shall collect data at least once every 15 minutes.
- (4) For each CPMS for measuring temperature range, the temperature sensor shall have a minimum tolerance of 2.8 °C (5 °F) or 1% of the measurement range, whichever is larger.
- (5) The Cutler facility shall conduct the CPMS equipment performance evaluation, system accuracy audits, or other auditing procedures specified in its site-specific monitoring plan at least annually.
- (6) Except for monitoring malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, the Cutler facility shall monitor continuously at all times each applicable engine is operating. The Cutler facility shall not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. The Cutler facility shall, however, use all valid data collected during all other periods.
- (7) The Cutler facility shall monitor the catalyst inlet temperature and reduce this data to 4-hour rolling averages to demonstrate compliance with the limitations on the catalyst inlet temperature range.
- (8) For any month in which any applicable engine operated, the Cutler facility shall monitor the pressure drop across the respective catalyst once per month to demonstrate compliance with the operating limit established during the last performance test.
- [40 C.F.R. §§ 63.6625, 63.6635, 63.6640(a) and Table 6(10)]
- d. General Requirements

The Cutler facility shall be in compliance with the emission limitations, operating limitations, and other applicable requirements in this subpart at all times. The Cutler facility shall operate and maintain all applicable engines and associated air

pollution control equipment and monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the facility to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operations and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

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e. Initial Performance Test

The Cutler facility was required to conduct an initial performance test within 180 days after the specified compliance date. [40 C.F.R. §§ 63.6612(a) and 63.6630, and Tables 4(3) and 5(2)]

The Cutler facility completed initial performance tests on the engines in September and December of 2016, after the installation of control equipment on each unit.

f. Subsequent Performance Tests

The Cutler facility is required to conduct subsequent performance tests on each of the units every 8,760 hours of operation or 3 years, whichever comes first. The Cutler facility shall conduct the tests in accordance with 40 C.F.R. § 63.6620 and Table 4 of the subpart. [40 C.F.R. § 63.6620, Table 3(2) and Table 4(3)]

- g. Notifications and Reports
  - (1) The Cutler facility shall report each instance when the requirements in Table 8 (General Provisions) of this subpart were not met. [40 C.F.R. § 63.6640 (e)]
  - (2) The Cutler facility shall submit all of the applicable notifications in §§ 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) by the dates specified. [40 C.F.R. § 63.6645]
  - (3) <u>Performance Tests</u>

The Cutler facility shall submit a Notification of Intent to conduct a performance test at least 60 days before each performance test is scheduled to begin. [40 C.F.R.  $\S$  63.7(b)(1) and 63.6645(g)]

(4) The Cutler facility shall submit the results of all required performance tests before close of business on the 60<sup>th</sup> day following the completion of the performance test. The Cutler facility was required to submit the results of the initial performance tests as part of the Notification of Compliance Status. Cutler

submitted these results on 10/12/2016 and 12/3/2016. [40 C.F.R. § 63.10(d)(2) and 63.6645(h)(2)]

(5) Notification of Compliance Status

The Cutler facility was required to submit a Notification of Compliance Status before the close of business on the  $60^{\text{th}}$  day following the completion of the initial performance test. Cutler submitted Notifications of Compliance Status on 10/12/2016 and 12/3/2016. [40 C.F.R. § 63.9(h)(2)(ii), 63.10(d)(2), and 63.6645(g) and (h)(2)]

(6) <u>Semiannual Compliance Reports</u>

The Cutler facility shall submit Semiannual Compliance Reports according to § 63.6650 and Table 7 of the subpart. The Semiannual Compliance Reports may be submitted on the dates specified in Condition (27) of the Title V permit (with or as a part of the Semiannual Report), or according to § 63.6650(b)(1)-(4). [40 C.F.R. § 63.6650(b) and (f) and Table 7(1)]

(7) Semiannual Compliance Reports Content

The compliance reports required under this subpart shall include the following information:

- (a) Organization name and address;
- (b) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report;
- (c) The date of report and beginning and ending dates of the reporting period;
- (d) If the facility had a malfunction during the reporting period, the number, duration, and a brief description for each type of malfunction that occurred during the reporting period and that caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of the actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with § 63.6605(b), including actions taken to correct a malfunction;
- (e) If the facility did not have any deviations from any applicable emission or operating limitation, statement that there were no deviations from the emission or operating limitations during the reporting period;
- (f) If there were no periods during which the CPMS was out-of-control, as specified in § 63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period; and
- (g) For each deviation from an emission or operating limitation, the following information:
- The date and time that each malfunction started and stopped;
- The date, time, and duration that each CPMS was inoperative, except for zero (low-level) and high-level checks;
- The date, time, and duration that each CPMS was out-of-control, including the information in § 63.8(c)(8);

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- A summary of the total duration of the deviation during the reporting period, and the total duration as the percent of the total source operating time during the reporting period;
- A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes;
- A summary of the total duration of CPMS downtime during the reporting period, and the total duration of the CPMS downtime as a percent of the total operating time of the engine at which the CPMS downtime occurred during that reporting period;
- An identification of each parameter and pollutant (CO) that was monitored at the engine;
- A brief description of the applicable engine;
- A brief description of the applicable CPMS;
- The date of the latest CPMS certification or audit; and
- A description of any changes in CMS, processes, or controls since the last reporting period.

[40 C.F.R § 63.6650(c) and (e)]

h. Recordkeeping

The Cutler facility shall keep the following records:

- A copy of each notification and report that has been submitted to comply with this subpart, including all documentation supporting the Initial Notification and Notification of Compliance Status, according to the requirement in § 63.10(b)(2)(xiv);
- (2) Records of the occurrence and duration of each malfunction of operation or the air pollution control and monitoring equipment;
- (3) Records of performance tests and performance evaluations as required in § 63.10(b)(2)(vii);
- (4) Records of all required maintenance performed on the air pollution control and monitoring equipment;
- (5) Records of action taken during periods of malfunction to minimize emissions in accordance with § 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation;
- (6) For each CPMS:
  - (a) Records described in § 63.10(b)(2)(vi)-(xi),
  - (b) Previous versions of the performance evaluation plan as required in § 63.8(d)(3), and
  - (c) Requests for alternatives to the relative accuracy test for CPMS as required in § 63.8(f)(6)(i), if applicable;

(7) Records required in Table 6 of this subpart to show continuous compliance with each emission or operating limitation;

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(8) Records of maintenance conducted on each engine in order to demonstrate that they, and their control devices, were operated and maintained according to the facility's maintenance plan.

All Records shall be kept in a form suitable and readily available for expeditious review according to § 63.10(b)(1); they must be kept for 5 years of each occurrence, measurement, maintenance, corrective action, report or record. [40 C.F.R. §§ 63.6655(a), (b), and (d) and 63.6660]

### **G. Facility Annual Emissions**

The table below provides an estimate of facility-wide annual emissions for the purposes of calculating the facility's annual air license fee. Only licensed equipment is included, i.e., emissions from insignificant activities are excluded. Similarly, unquantifiable fugitive particulate matter emissions are not included. Maximum potential emissions were calculated based on the following assumptions:

- Firing 254,040 gal/yr distillate fuel in boilers VLF-103-B#7 and VLF-103-B#8 (combined);
- Firing 2,504,221 gal/yr distillate fuel in engines HF-401-D#5, VLF-103-D#2, VLF-103-D#3, VLF-103-D#4, VLF-103-D#5, and VLF-103-D#6 (combined);
- 100 hours/year of operation for each emergency engine (non-emergency operation hours)

Please note, this information provides the basis for fee calculation only and should not be construed to represent a comprehensive list of license restrictions or permissions. That information is provided in the Order section of this license.

### Total Licensed Annual Emissions for the Facility Tons/year

	PM	<b>PM</b> <sub>10</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC
VLF-103-B#7 & #8	2.1	2.1	0.1	2.6	0.7	0.1
Non-Emergency Engines	14.8	14.8	0.3	549.0	43.8	17.2
<b>Emergency Engines</b>	0.1	0.1		0.4	0.1	0.1
Total TPY	17.0	17.0	0.4	552.0	44.6	17.4

(used to calculate the annual license fee)

Pollutant	Tons/year
Single HAP	9.9
Total HAP	24.9

## III.AMBIENT AIR QUALITY ANALYSIS

Cutler previously submitted an ambient air quality analysis demonstrating that emissions from the facility, in conjunction with all other sources, do not violate ambient air quality standards (see license A-210-77-5-A, issued on May 18, 2020). An additional ambient air quality analysis is not required for this Part 70 License.

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### ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that emissions from this source:

- will receive Best Practical Treatment;
- will not violate applicable emissions standards; and
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants the Part 70 License Amendment A-210-70-I-A pursuant to 06-096 C.M.R. 140 and the preconstruction permitting requirements of *Major and Minor Source Air Emission License Regulations*, 06-096 C.M.R. ch. 115 and subject to the conditions found in Air Emission License A-210-70-D-R, in amendments A-210-70-E-A, A-210-70-F-A, and A-210-70-G-A, and the following conditions.

Federally enforceable conditions in this Part 70 license must be changed pursuant to the applicable requirements in 06-096 C.M.R. ch. 115 for making such changes and pursuant to the applicable requirements in 06-096 C.M.R. ch. 140.

For each specific condition which is state enforceable only, state-only enforceability is designated with the following statement: **Enforceable by State-only**.

<u>Severability</u>. 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.

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### **SPECIFIC CONDITIONS**

The following shall replace Specific Condition (16) of Air Emission License A-210-70-G-A (October 21, 2016)

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## (16) Non-Emergency Engines VLF-103-D#2, VLF-103-D#3, VLF-103-D#4, and VLF-103-D#5

- A. Fuel fired in the non-emergency engines VLF-103-D#2, VLF-103-D#3, VLF-103-D#4, and VLF-103-D#5 shall be ultra-low sulfur distillate fuel with a sulfur content not to exceed 0.0015% by weight. Compliance shall be demonstrated by supplier fuel records of quantities and sulfur content of each delivery. [06-096 C.M.R. ch. 140, BPT]
- B. Emissions from <u>each</u> unit VLF-103-D#2, VLF-103-D#3, VLF-103-D#4, and VLF-103-D#5 shall not exceed the following limits:

Pollutant	lb/MMBtu	Origin and Authority	<b>Enforceability</b>
PM 0.08	A-210-77-1-A (12/29/2014),	Federally	
	BACT	Enforceable	

<b>Pollutant</b>	<b>Emission Limit</b>	Emission Limit Basis
СО	70% reduction or 23 ppmvd @ 15% O <sub>2</sub>	40 C.F.R. § 63.6603(a) and Table 2d(3)

<b>Pollutant</b>	lb/hour	Origin and Authority
PM	2.56	
<b>PM</b> <sub>10</sub>	2.56	A-210-77-1-A (12/29/2014), BACT
PM <sub>2.5</sub>	2.56	A-210-77-1-A (12/29/2014), BAC1
SO <sub>2</sub>	0.05	
	102.4	A-210-70-B-A (3/18/2004), BACT
NO <sub>x</sub>		and
NOx		A-210-77-5-A (5/18/2020)
		06-096 C.M.R. ch. 138, NO <sub>x</sub> RACT
CO	8.16	A-210-77-5-A (5/18/2020), BPT
VOC	3.2	A-210-70-B-A (3/18/2004) and
VUC		A-210-70-D-R (6/19/2012), BACT/BPT

C. Visible emissions from each of the engines shall not exceed 20% opacity on a sixminute block average basis except for periods of startup during which time Cutler may

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comply with the following work practice standards in lieu of the numerical visible emissions standard.  $[06-096 \text{ C.M.R. ch. } 101, \S 3(A)(4)]$ 

- 1. Maintain a log (written or electronic) of the date, time, and duration of all engine startups.
- 2. Operate the engines in accordance with the manufacturer's emission-related operating instructions.
- 3. Minimize each engine's time spent at idle during startup and minimize each 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 shall apply.
- 4. Operate the engines, including any associated air pollution control equipment, at all times in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Department that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the unit.
- D. At any one time, Cutler shall operate only one of the Units VLF-103-D#2, VLF-103-D#3, VLF-103-D#4, or VLF-103-D#5 but not two or more concurrently, except during periods when one of the units is being brought off-line and another is being brought on-line. Operational records shall be maintained documenting compliance with this requirement.

The above limitation notwithstanding, Cutler may operate up to three of these units concurrently for short periods of time for special circumstances such as de-icing, testing, maintenance, equipment upgrades, and training, but such concurrent operation shall not exceed 100 hours per year. Cutler shall document the reason for concurrent operation and the total number of hours that two or three units are operating concurrently and make these records available upon request. [A-210-77-5-A (5/18/2020), BPT]

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The following shall replace Specific Condition (17) of Air Emission License A-210-70-D-R (June 19, 2012).

### (17) VLF-103-D#6

A. Emissions from VLF-103-D#6 shall not exceed the following limits:

Pollutant	lb/MMBtu	Origin and Authority
PM	0.20	06-096 C.M.R. ch. 103

Pollutant	lb/hr	Origin and Authority	Enforceability
PM	1.60	A-210-71-J-M (2/20/1998), BPT	
<b>PM</b> <sub>10</sub>	1.60	A-210-71-J-M (2/20/1998), BPT	
SO <sub>2</sub>	0.41	A-210-70-B-A (3/18/2004), BPT	Enforceable by State-only
CO	2.04	A-210-77-5-A (5/18/2020), BPT	
VOC	0.80	A-210-70-B-A (3/18/2004), BPT	Enforceable by State-only

- B. Visible emissions from the engine shall not exceed 20% opacity on a six-minute block average basis except for periods of startup during which time Cutler may comply with the following work practice standards in lieu of the numerical visible emissions standard. [06-096 C.M.R. ch. 101, § 3(A)(4)]
  - 1. Maintain a log (written or electronic) of the date, time, and duration of all engine startups.
  - 2. Operate the engine in accordance with the manufacturer's emission-related operating instructions.
  - 3. Minimize the engine's time spent at idle during startup 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 shall apply.
  - 4. Operate the engine, including any associated air pollution control equipment, at all times in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Department that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the unit.

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- C. Fuel
  - 1. Total fuel use for VLF-103-D#6 shall not exceed 133,000 gal/yr of distillate fuel on a 12-month rolling total basis. [A-210-77-3-A (9/20/2018), BPT]

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- 2. Distillate fuel fired in VLF-103-D#6 shall have a maximum sulfur content that does not exceed 0.0015% by weight (15 ppm). [A-210-77-3-A (9/20/2018), BPT]
- 3. Compliance shall be demonstrated with on-site fuel use records and purchase records from the supplier showing the quantity, type, and the percent sulfur of the fuel delivered. Records of annual fuel use shall be kept on a monthly and 12-month rolling total basis. [A-210-77-3-A (9/20/2018), BPT]

# The following shall replace Specific Condition (19) of Air Emission License A-210-70-D-R (June 19, 2012).

### (19) **NO<sub>x</sub> RACT Requirements**

A. The NOx emissions from VLF-103-D#2, VLF-103-D#3, VLF-103-D#4, VLF-103-D#5, and VLF-103-D#6 shall not exceed the following limits [A-210-77-5-A (5/18/2020), BPT and 06-096 C.M.R. ch. 138, NO<sub>x</sub> RACT]:

Equipment	NO <sub>x</sub> lb/MMBtu	NO <sub>x</sub> lb/hr
VLF-103-D#2		
VLF-103-D#3	4.16	102.4
VLF-103-D#4	4.10	102.4
VLF-103-D#5		
VLF-103-D#6	3.2	25.61

- B. Combined NO<sub>x</sub> emissions from VLF-103-D#2, VLF-103-D#3, VLF-103-D#4, VLF-103-D#5, and VLF-103-D#6 shall not exceed 549 tons per year on a 12-month rolling total basis.
   [A-210-77-5-A (5/18/2020), BPT and 06-096 C.M.R. ch. 138, NO<sub>x</sub> RACT]
- C. When practicable, Cutler shall minimize use of engines VLF-103-D#2, VLF-103-D#3, VLF-103-D#4, and VLF-103-D#5 by the use of commercial power as the primary source of power for the facility. [A-210-77-5-A (5/18/2020), BPT and 06-096 C.M.R. ch. 138, NO<sub>x</sub> RACT]

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- D. Cutler shall maintain ignition timing retard between 14° and 14.5° to minimize NO<sub>x</sub> emissions on units VLF-103-D#2, VLF-103-D#3, VLF-103-D#4, and VLF-103-D#5. Cutler shall check the ignition timing retard annually and adjust as required. [A-210-71-F-A (7/25/1995), 06-096 C.M.R. ch. 138, NO<sub>x</sub> RACT]
- E. Monitoring Requirements
  - 1. Cutler shall continuously monitor and record the following engine operational parameters to ensure optimal engine operation and minimized NO<sub>x</sub> emissions. [A-210-70-E-A (9/6/2013), BPT and 06-096 C.M.R. ch. 138, NO<sub>x</sub> RACT]

		Monitoring	<b>Frequency</b>	
Parameter Indicator Range		Method	Monitor	Record
VLF-103-D#2, D#3, D#	4, and D#5			
Turbo Charger Exhaust	1100 °F (engine hot)			Twice per 8-
Inlet Temperature, °F	1200 °F (max pre-turbo)	Temperature	Continuously	hour shift when
Oil Outlet (engine)	160 − 170 °F	probe	Continuousiy	the engine is
Temperature, °F	180 °F alarm			operating
VLF-103-D#6				
Coolant Temperature	115 – 180 °F	Temperature	Continuously	Twice per 8- hour shift when
Coolant Level	Manufacturer's high/low	probe	Continuously	the engine is
	indicators			operating

- 2. For any shift, for each of the above engines which is not operating, Cutler shall document that the engine was not in operation; no recorded temperatures are required.
- 3. In the event that one or more of the required sensors specified above fails, Cutler shall replace the failed sensor within a reasonable timeframe for sensor replacement but not to exceed 21 days and shall continue to monitor and record other engine performance parameters in the interim. Documentation of the time of detection of the sensor failure and the time of sensor replacement shall fulfill the monitoring requirements for that specific unit for up to a 21-day replacement time period.

The facility may exceed the 21-day replacement time period and remain in compliance with this license condition by taking the engine out of service. In the rare case that the engine cannot be taken down because of lack of back-up engine to fulfill functional requirements of the facility, Cutler shall notify the Department, shall document the reasons for such continued operation, and shall replace the failed sensor(s) as expeditiously as possible.

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The following shall replace Specific Condition (21) of Air Emission License A-210-70-D-R (June 19, 2012).

## (21) VLF-103-D#2 through D#6; National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, 40 C.F.R. Part 63, Subpart ZZZZ

The Cutler facility shall comply with all applicable requirements of 40 C.F.R. Part 63, Subpart ZZZZ, including the following for non-emergency engines VLF-103-D#2, VLF-103-D#3, VLF-103-D#4, VLF-103-D#5, and VLF-103-D#6:

Classification	Emission Limits (except during startup)	<b>Operating Requirements</b>
Non- Emergency, non-black start CI Stationary RICE >500 HP at an area source of HAP	Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd at 15% O <sub>2</sub> ; or Reduce CO emissions by 70% or more. [40 C.F.R. § 63.6603(a) and Table 2d(3)]	<ol> <li>Maintain the catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water from the pressure drop across the catalyst that was measured during the initial performance test.</li> <li>Maintain the temperature of the stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F.</li> <li>[40 C.F.R. § 63.6603(a) and Table 2b(2)(b)]</li> </ol>
	The engines are equipped with diesel oxidation catalysts to comply with the emission limits.	<ul> <li>3. Minimize each engine's time spent at idle during startup and minimize each engine's startup time to a period needed for appropriate and safe loading for each engine. Startup time shall not exceed 30 minutes, after which time the non-startup emission limitations apply [40 C.F.R. Part 63, Subpart ZZZZ Table 2d]</li> <li>4. Fire diesel fuel with a sulfur content not to exceed 15 ppm sulfur (0.0015% sulfur) by weight. [40 C.F.R. § 63.6640(a)]</li> </ul>

**Emission and Operating Limitations** 

A. Continuous Parameter Monitoring System

The Cutler facility shall operate and maintain each CPMS according to the following:

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- 1. The Cutler facility must prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined in § 63.6625(b)(1)(i-v).
- 2. Each CPMS shall be operated and maintained according to the procedures in the site-specific monitoring plan
- 3. The CPMS shall collect data at least once every 15 minutes.
- 4. For each CPMS for measuring temperature range, the temperature sensor shall have a minimum tolerance of 2.8  $^{\circ}$ C (5  $^{\circ}$ F) or 1% of the measurement range, whichever is larger.
- 5. The Cutler facility shall conduct the CPMS equipment performance evaluation, system accuracy audits, or other auditing procedures specified in its site-specific monitoring plan at least annually.
- 6. Except for monitoring malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, the Cutler facility shall monitor continuously at all times each applicable engine is operating. The Cutler facility shall not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. The Cutler facility shall, however, use all valid data collected during all other periods.
- 7. The Cutler facility shall monitor the catalyst inlet temperature and reduce this data to 4-hour rolling averages to demonstrate compliance with the limitations on the catalyst inlet temperature range.
- 8. For any month in which any applicable engine operated, the Cutler facility shall monitor the pressure drop across the respective catalyst once per month to demonstrate compliance with the operating limit established during the last performance test.

[40 C.F.R. §§ 63.6625, 63.6635, 63.6640(a) and Table 6(10)]

B. General Requirements

The Cutler facility shall be in compliance with the emission limitations, operating limitations, and other applicable requirements in this subpart at all times. The Cutler facility shall operate and maintain all applicable engines and associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the facility to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of

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whether such operations and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

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C. Performance Tests

The Cutler facility is required to conduct subsequent performance tests on each of the units every 8,760 hours of operation or 3 years, whichever comes first. The Cutler facility shall conduct the tests in accordance with 40 C.F.R. § 63.6620 and Table 4 of the subpart. [40 C.F.R. § 63.6620, Table 3(2) and Table 4(3)]

- D. Notifications and Reports
  - 1. The Cutler facility shall report each instance when the requirements in Table 8 (General Provisions) of this subpart were not met. [40 C.F.R. § 63.6640 (e)]
  - 2. The Cutler facility shall submit all of the applicable notifications in §§ 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) by the dates specified. [40 C.F.R. § 63.6645]
  - 3. Performance Tests

The Cutler facility shall submit a Notification of Intent to conduct a performance test at least 60 days before each performance test is scheduled to begin. [40 C.F.R. § 63.7(b)(1) and 63.6645(g)]

4. <u>Semiannual Compliance Reports</u>

The Cutler facility shall submit Semiannual Compliance Reports according to § 63.6650 and Table 7 of the subpart. The Semiannual Compliance Reports may be submitted on the dates specified in Condition (27) of the Title V permit (with or as a part of the Semiannual Report), or according to § 63.6650(b)(1)-(4). [40 C.F.R. § 63.6650(b) and (f) and Table 7(1)]

The compliance reports required under this subpart shall include the following information:

- a. Organization name and address;
- b. Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report;
- c. The date of report and beginning and ending dates of the reporting period;
- d. If the facility had a malfunction during the reporting period, the number, duration, and a brief description for each type of malfunction that occurred during the reporting period and that caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of the actions taken by an owner or operator during a malfunction of an affected

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source to minimize emissions in accordance with § 63.6605(b), including actions taken to correct a malfunction;

- e. If the facility did not have any deviations from any applicable emission or operating limitation, a statement that there were no deviations from the emission or operating limitations during the reporting period;
- f. If there were no periods during which the CPMS was out-of-control, as specified in § 63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period; and
- g. For each deviation from an emission or operating limitation, the following information:
  - The date and time that each malfunction started and stopped;
  - The date, time, and duration that each CPMS was inoperative, except for zero (low-level) and high-level checks;
  - The date, time, and duration that each CPMS was out-of-control, including the information in § 63.8(c)(8);
  - A summary of the total duration of the deviation during the reporting period, and the total duration as the percent of the total source operating time during the reporting period;
  - A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes;
  - A summary of the total duration of CPMS downtime during the reporting period, and the total duration of the CPMS downtime as a percent of the total operating time of the engine at which the CPMS downtime occurred during that reporting period;
  - An identification of each parameter and pollutant (CO) that was monitored at the engine;
  - A brief description of the applicable engine;
  - A brief description of the applicable CPMS;
  - The date of the latest CPMS certification or audit; and

A description of any changes in CMS, processes, or controls since the last reporting period.

[40 C.F.R § 63.6650(c) and (e)]

#### E. Recordkeeping

The Cutler facility shall keep the following records:

1. A copy of each notification and report that has been submitted to comply with this subpart, including all documentation supporting the Initial Notification and

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Notification of Compliance Status, according to the requirement in § 63.10(b)(2)(xiv);

- 2. Records of the occurrence and duration of each malfunction of operation or the air pollution control and monitoring equipment;
- 3. Records of performance tests and performance evaluations as required in §63.10(b)(2)(vii);
- 4. Records of all required maintenance performed on the air pollution control and monitoring equipment;
- 5. Records of action taken during periods of malfunction to minimize emissions in accordance with § 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation;
- 6. For each CPMS:
  - a. Records described in § 63.10(b)(2)(vi)-(xi),
  - b. Previous versions of the performance evaluation plan as required in  $\S$  63.8(d)(3), and
  - c. Requests for alternatives to the relative accuracy test for CPMS as required in § 63.8(f)(6)(i), if applicable;
- 7. Records required in Table 6 of this subpart to show continuous compliance with each emission or operating limitation;
- 8. Records of maintenance conducted on each engine in order to demonstrate that they, and their control devices, were operated and maintained according to the facility's maintenance plan.

All Records shall be kept in a form suitable and readily available for expeditious review according to § 63.10(b)(1); they must be kept for 5 years of each occurrence, measurement, maintenance, corrective action, report or record. [40 C.F.R. §§ 63.6655(a), (b), and (d) and 63.6660]

# The following shall replace Specific Condition (35) of Air Emission License A-210-70-G-A (October 21, 2016).

#### (35) **Boilers VLF-103-B#7 and VLF-103-B#8**

A. Allowable Fuels

- 1. Boilers VLF-103-B#7 and VLF-103-B#8 are licensed to fire distillate fuel. [06-096 C.M.R. ch. 140, BPT]
- 2. The combined fuel use limit for Boilers VLF-103-B#7 and VLF-103-B#8 shall be 545,040 gallons/year. [A-210-77-1-A (12/29/2014), BACT]
- 3. Cutler shall maintain records of the quantity of fuel consumed on a monthly and 12-month rolling total basis. [06-096 C.M.R. ch. 140, BPT]

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- B. Fuel Sulfur Content
  - 1. Distillate Fuel

Cutler shall not purchase or otherwise obtain distillate fuel with a maximum sulfur content that exceeds 0.0015% by weight (15 ppm). [38 M.R.S. § 603-A(2)(A)(3)(a)]

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2. Sulfur Content Compliance

Sulfur content compliance shall be demonstrated by fuel records showing the quantity, type, and the percent sulfur of the fuel delivered. Fuel sulfur content compliance shall be demonstrated by fuel delivery receipts from the supplier, fuel supplier certification, certificate of analysis, or testing of the tank containing the fuel to be fired. [06-096 C.M.R. ch. 140, BPT]

C. Boiler VLF-103-B#7 and VLF-103-B#8 Emission Limits

Emission limits are on a 1-hour block average basis unless otherwise stated.

1. Emissions from Boilers VLF-103-B#7 and VLF-103-B#8 shall each not exceed the following limits:

Pollutant	llutant lb/MMBtu Origin and Authority	
PM	0.12	06-096 CMR 103(2)(B)(1)(a)

2. Emissions from Boilers VLF-103-B#7 and VLF-103-B#8 shall not exceed the following limits:

Pollutant	lb/hr	Origin and Authority
PM	0.48	A-210-77-3-A (9/20/2018), BACT
PM <sub>10</sub>	0.48	A-210-77-3-A (9/20/2018), BACT
PM <sub>2.5</sub>	0.48	A-210-77-3-A (9/20/2018), BACT
$SO_2$	0.006	A-210-77-3-A (9/20/2018), BACT
NO <sub>x</sub>	0.58	A-210-77-3-A (9/20/2018), BACT
CO	0.15	A-210-77-3-A (9/20/2018), BACT
VOC	0.01	A-210-77-3-A (9/20/2018), BACT

D. Visible Emissions

When only one of boilers VLF-103-B#7 and VLF-103-B#8 is operating, visible emissions from that boiler shall not exceed 20% opacity on a 6-minute block average basis.  $[06-096 \text{ C.M.R. ch. } 101, \S 3(A)(2)]$ 

When operating concurrently, visible emissions from boilers VLF-103-B#7 and VLF-103-B#8 shall not exceed 30% opacity on a 6-minute block average basis, except for periods of startup, shutdown, malfunction, or approved maintenance, during which times Cutler may demonstrate compliance through the following work practice standards in lieu of the numerical visible emissions standard. [06-096 C.M.R. ch. 101, § 3(D)(1)]

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Work Practice Standards

- 1. Maintain a log (written or electronic) of the date, time, and duration of all operating time, startups, shutdowns, and malfunctions for each boiler.
- 2. Develop and implement a written startup and shutdown plan for each boiler.
- 3. The duration of unit startups, shutdowns, or malfunctions shall each not exceed one hour per occurrence.
- 4. Operate each boiler at all times in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Department that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the unit.
- E. 40 C.F.R. Part 63, Subpart JJJJJJ
  - 1. Boiler Tune-Up Program

A boiler tune-up program shall be implemented in accordance with this Subpart, including the following requirements: [40 CFR § 63.11210(f))]

- a. For VLF-103-B#7 and VLF-103-B#8, a tune-up is required every five years. [40 CFR § 63.11223(a) and Table 2]
- b. For each tune-up, a tune-up compliance report shall be maintained onsite and, if requested, submitted to EPA. Each report shall contain the concentration of CO in the effluent stream (ppmv) and of oxygen (volume percent), measured at high fire or typical operating load, both **before** and **after** the boiler tune-up; a description of any corrective actions taken as part of the tune-up of the boiler; and the types and amounts of fuels used over the 12 months prior to the tune-up of the boiler. [40 CFR § 63.11223(b)(6)]

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c. The compliance report shall also include the company name and address; a compliance statement signed by a responsible official certifying truth, accuracy, and completeness; and a description of any deviations and corrective actions. [40 CFR § 63.11225(b)]

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2. Boiler Tune-Up Requirements

Boiler tune-ups, conducted to demonstrate continuous compliance, shall be performed as specified below:

- As applicable, inspect the burner, and clean or replace any component of the burner as necessary. Delay of the burner inspection until the next scheduled shutdown is permitted, not to exceed 72 months from the previous inspection. [40 CFR § 63.11223(b)(1)]
- b. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern, consistent with the manufacturer's specifications. [40 CFR § 63.11223(b)(2)]
- c. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure it is correctly calibrated and functioning properly. Delay of the inspection until the next scheduled shutdown is permitted, not to exceed 72 months from the previous inspection. [40 CFR § 63.11223(b)(3)]
- d. Optimize total emissions of CO, consistent with manufacturer's specifications. [40 CFR § 63.11223(b)(4)]
- e. Measure the concentration in the effluent stream of CO in parts per million by volume (ppmdv), and oxygen in volume percent, both **before** and **after** adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. [40 CFR § 63.11223(b)(5)]
- f. If a unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of start-up. [40 CFR § 63.11223(b)(7)]
- 3. Recordkeeping

Records shall be maintained consistent with the requirements of 40 CFR Part 63, Subpart JJJJJJ including the following:

- a. Copies of notifications and reports with supporting compliance documentation;
- b. Identification of each boiler, the date of tune-up, tune-up procedures followed, and the manufacturer's specifications to which the boiler was tuned;

- c. Documentation of fuel type(s) used monthly by each boiler;
- d. The occurrence and duration of each malfunction of the boiler;

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e. Actions taken during periods of malfunction to minimize emissions and to restore the malfunctioning boiler to its usual manner of operation.

Records shall be in a form suitable and readily available for expeditious review. [40 CFR § 63.11225(c)]

Specific Condition (37) of Air Emission License A-210-70-G-A (10/21/2016) is hereby removed.

done and dated in Augusta, maine this  $13^{th}$  day of JANUARY, 2021.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: MELANIE LOYZIN, ACTING COMMISSIONER

The term of this amendment shall be concurrent with the term of Air Emission License A-210-70-D-R.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: <u>December 23, 2019</u> Date of application acceptance: <u>January 6, 2020</u>

Date filed with the Board of Environmental Protection:

This Order prepared by Benjamin Goundie, Bureau of Air Quality.

