

**Naval Computer and  
Telecommunications Area Master  
Station Atlantic Detachment Cutler  
Washington County  
East Machias, Maine  
A-210-70-B-A**

**Departmental  
Findings of Fact and Order  
Part 70 Air Emission License  
Amendment #1**

After review of the Part 70 Minor Change application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A, Section 344 and Section 590, the Department finds the following facts:

**I. Registration**

A. Introduction

|                                  |   |
|----------------------------------|---|
| FACILITY                         | Naval Computer and Telecommunications Area Master Station Atlantic Detachment (NCTAMS LANT DET)         |
| INITIAL LICENSE NUMBER           | A-210-70-A-I  |
| LICENSE TYPE                     | Part 70 Minor Change  |
| SIC CODES                        | 9711 National Security (Federal Facility)<br>4911 Electrical Power Generation<br>3443 Oil Storage Tanks |
| NATURE OF BUSINESS               | Naval communications; generates electricity and produces energy for space heating                       |
| FACILITY LOCATION                | Route 191, Cutler, Maine  |
| DATE OF INITIAL LICENSE ISSUANCE | January 14, 2002  |
| DATE OF PART 70 MINOR CHANGE     | March 18, 2004  |
| LICENSE EXPIRATION DATE          | January 14, 2007  |

B. Description of Part 70 Minor Change

NCTAMS LANT DET has applied for a Part 70 Minor Change to revise the capacity of four units:

| Emission Unit ID | Actual Unit Capacity | Capacity listed in A-210-70-A-I |
|------------------|----------------------|---------------------------------|
| GAS-B#1          | 5.5 MMBtu/hr         | 4.0 MMBtu/hr                    |
| GAS-B#2          | 10.3 MMBtu/hr        | 8.4 MMBtu/hr                    |
| GAS-B#3          | 2.2 MMBtu/hr         | 1.2 MMBtu/hr                    |
| VLF-B#15         | 3.4 MMBtu/hr         | 2.2 MMBtu/hr                    |

NCTAMS LANT DET has requested it be noted that unit DIE-09 be designated as an internal combustion engine for driving a centrifugal fire pump instead of simply a stationary internal combustion engine (SICE).

Boiler VLF-B#6 will no longer burn waste oil as a secondary source of fuel. Diesel fuel with a maximum sulfur content of 0.05% will now comprise the only source of fuel for this boiler.

Operational flexibility on the use of generator VLF-D#6 has also been requested. The change requested is to average the plant load demand over a two hour period instead of an instantaneous measure as is currently licensed.

NCTAMS LANT DET has also requested a change to internal combustion engine NO<sub>x</sub> monitoring by requiring NO<sub>x</sub> monitoring after the unit has generated power for more than 48 hours or if the unit is scheduled to operate for more than 48 hours during a monthly period. This change eliminates the requirement for each diesel unit to be started every month, even if they were not scheduled to run.

Another change to the license is the removal of reference to NO<sub>x</sub> emission limits in Condition 14(D) and Condition 15(D) due to existing NO<sub>x</sub> RACT Condition 16(A). The emission limits were recalculated using the NO<sub>x</sub> RACT lb/MMBtu limit in the Finding of Fact for license A-210-70-A-I and an engine efficiency of 32% derived after review of operational data.

### Revised Diesel Engine Capacity and Heat Input

| Emission Unit ID | Heat Input* (MMBtu/hr) | Generator Output | Fuel, Max. % Sulfur Content by Weight |
|------------------|------------------------|------------------|---------------------------------------|
| VLF-D#1          | 29.33                  | 2750 kW          | diesel fuel, 0.05%                    |
| VLF-D#2          | 32.00                  | 3000 kW          | diesel fuel, 0.05%                    |
| VLF-D#3          | 32.00                  | 3000 kW          | diesel fuel, 0.05%                    |
| VLF-D#4          | 32.00                  | 3000 kW          | diesel fuel, 0.05%                    |
| VLF-D#5          | 32.00                  | 3000 kW          | diesel fuel, 0.05%                    |
| VLF-D#6          | 8.00                   | 750 kW           | diesel fuel, 0.05%                    |
| GAS-D#5          | 6.61                   | 620 kW           | diesel fuel, 0.05%                    |
| GAS-D#6          | 10.67                  | 1000 kW          | diesel fuel, 0.05%                    |
| DIE-09           | 1.28                   | 120 kW           | diesel fuel, 0.05%                    |

\* Heat input derived using known generator outputs, 138,000 Btu/gallon of diesel fuel and an engine efficiency of 32%.

C. Application Classification

The application for NCTAMS LANT DET does not violate any applicable federal or state requirement and does not increase the sources potential to emit by significant emissions. This application is not a modification or reconstruction under Section 111 or 112 of the Clean Air Act (CAA) or a Title I modification under the CAA. Therefore, the license amendment is considered to be a Part 70 Minor Change issued under Section 9 of Chapter 140 of the Department's regulations for a Part 70 source.

D. Revised Facility Emissions

- 780,087 gallons per year #2 fuel oil, 0.5% sulfur by weight maximum, in the boilers.
- 2,504,221 gallons per year diesel fuel, 0.05% sulfur by weight maximum, in GAS-D#5, GAS-D#6, VLF-D#1, VLF-D#2, VLF-D#3, VLF-D#4, VLF-D#5, VLF-D#6 and DIE-09 (combined).  
(all based on a 12 month rolling total)

**Total Annual Emissions for the Facility**  
(used to calculate the annual license fee)

| <b>Pollutant</b> | <b>Boilers</b> | <b>Diesels</b> | <b>Total<br/>Tons/year</b> |
|------------------|----------------|----------------|----------------------------|
| PM               | 6.6            | 34.6           | <b>41.2</b>                |
| PM <sub>10</sub> | 6.6            | 34.6           | <b>41.2</b>                |
| SO <sub>2</sub>  | 27.5           | 8.8            | <b>36.3</b>                |
| NO <sub>x</sub>  | 10.4           | 552.9          | <b>563.3</b>               |
| CO               | 16.4           | 146.9          | <b>163.3</b>               |
| VOC              | 5.5            | 17.3           | <b>22.8</b>                |

**ORDER**

The Department hereby grants Part 70 Minor Change A-210-70-B-A, subject to the conditions found in Part 70 License A-210-70-A-I and in addition to the following conditions:

The following shall replace Conditions (14)(A), (B) and (D) of Part 70 License A-210-70-A-I:

- (14) Boilers – GAS-B#1, GAS-B#2, GAS-B#3, VLF-B#6, and VLF-B#15
- A. NCTAMS LANT DET is licensed to operate boilers GAS-B#1 (5.5 MMBtu/hr); GAS-B#2 (10.3 MMBtu/hr); GAS-B#3 (2.2 MMBtu/hr) and VLF-B#15 (3.4 MMBtu/hr), which are licensed to #2 fuel oil, with a sulfur content not to exceed 0.5% by weight.  
[MEDEP Chapter 140, BPT]
- B. NCTAMS LANT DET is also licensed to operate boiler VLF-B#6 (6.4 MMBtu/hr), which is licensed to fire diesel fuel, with a sulfur content not to exceed 0.05% by weight.  
[MEDEP Chapter 140, BPT]
- D. Emissions from each boiler shall not exceed the following limits:

| Equipment |          | PM   | PM <sub>10</sub> | SO <sub>2</sub> | CO   | VOC  |
|-----------|----------|------|------------------|-----------------|------|------|
| GAS-B#1   | lb/MMBtu | 0.12 | -                | -               | -    | -    |
|           | lb/hr    | 0.66 | 0.66             | 2.77            | 1.65 | 0.55 |
| GAS-B#2   | lb/MMBtu | 0.12 | -                | -               | -    | -    |
|           | lb/hr    | 1.24 | 1.24             | 5.19            | 3.09 | 1.03 |
| GAS-B#3   | lb/hr    | 0.26 | 0.26             | 1.11            | 0.66 | 0.22 |
| VLF-B#6   | lb/MMBtu | 0.12 | -                | -               | -    | -    |
|           | lb/hr    | 0.77 | 0.77             | 0.32            | 1.92 | 0.64 |
| VLF-B#15  | lb/hr    | 0.41 | 0.41             | 1.71            | 1.02 | 0.34 |

- NOTE:
1. Lb/hr limits are Enforceable by State-only.
  2. PM lb/MMBtu limit based upon MEDEP Chapter 103.

Condition 14(C) of Part 70 License A-210-70-A-I has been deleted.

Condition 14(H), reference to waste oil use in VLF-B#6, of Part 70 License A-210-70-A-I has been deleted.

The following shall replace Condition (15)(D), (H), and (I) of Part 70 License A-210-70-A-I:

- (15) Stationary Internal Combustion Engines–GAS-D#5, GAS-D#6, VLF-D#1, VLF-D#2, VLF-D#3, VLF-D#4, VLF-D#5, VLF-D#6 and DIE-09

D. Emissions from each engine shall not exceed the following limits:

| Equipment |          | PM   | PM <sub>10</sub> | SO <sub>2</sub> | CO    | VOC  |
|-----------|----------|------|------------------|-----------------|-------|------|
| GAS-D#5   | lb/MMBtu | 0.20 | -                | -               | -     | -    |
|           | lb/hr    | 1.32 | 1.32             | 0.34            | 5.62  | 0.66 |
| GAS-D#6   | lb/MMBtu | 0.20 | -                | -               | -     | -    |
|           | lb/hr    | 2.13 | 2.13             | 0.54            | 9.07  | 1.07 |
| VLF-D#1   | lb/MMBtu | 0.20 | -                | -               | -     | -    |
|           | lb/hr    | 5.87 | 5.87             | 1.50            | 24.93 | 2.93 |
| VLF-D#2   | lb/MMBtu | 0.20 | -                | -               | -     | -    |
|           | lb/hr    | 6.40 | 6.40             | 1.63            | 27.20 | 3.20 |
| VLF-D#3   | lb/MMBtu | 0.20 | -                | -               | -     | -    |
|           | lb/hr    | 6.40 | 6.40             | 1.63            | 27.20 | 3.20 |
| VLF-D#4   | lb/MMBtu | 0.20 | -                | -               | -     | -    |
|           | lb/hr    | 6.40 | 6.40             | 1.63            | 27.20 | 3.20 |
| VLF-D#5   | lb/MMBtu | 0.20 | -                | -               | -     | -    |
|           | lb/hr    | 6.40 | 6.40             | 1.63            | 27.20 | 3.20 |
| VLF-D#6   | lb/MMBtu | 0.20 | -                | -               | -     | -    |
|           | lb/hr    | 1.60 | 1.60             | 0.41            | 6.80  | 0.80 |
| DIE-09    | lb/hr    | 0.40 | 0.40             | 0.07            | 1.22  | 0.45 |

NOTE: 1. Lb/hr limits are Enforceable by State-only.

H. NCTAMS LANT DET shall not fire more than 133,000 gallons per year of low-sulfur diesel fuel in VLF-D#6, based on a 12-month rolling total. This quantity of fuel is included in the total annual low-sulfur diesel fuel limit stated in Condition 15(G). NCTAMS LANT DET shall maintain records demonstrating hours of operation and fuel consumption for VLF-D#6. [MEDEP Chapter 140, BPT] **Enforceable by State-only**

I. NCTAMS LANT DET shall utilize a portable NO<sub>x</sub> monitor to measure the NO<sub>x</sub> emissions from each SICE unit after generating power for more than 48 hours or if the unit is scheduled to operate for more than 48 hours during a monthly period. The NO<sub>x</sub> monitor shall be operated and maintained according to manufacturer's specifications. Monitoring shall be performed according to the Portable Analyzer Monitoring Protocol approved by the Department.

The following shall replace Condition (16)(A) and 16(D) of Part 70 License A-210-70-A-I:

(16) NCTAMS LANT DET shall comply with the following NO<sub>x</sub> RACT requirements: [MEDEP Chapter 138]

A. NCTAMS LANT DET shall not exceed the following emission limits:

**General Administration Site Emission Limits**

| Equipment | NO <sub>x</sub> lb/MMBtu | NO <sub>x</sub> lb/hr |
|-----------|--------------------------|-----------------------|
| GAS-B#1   | -                        | 1.05                  |
| GAS-B#2   | -                        | 1.96                  |
| GAS-B#3   | -                        | 0.42                  |
| GAS-D#5   | 3.20                     | 21.16                 |
| GAS-D#6   | 3.20                     | 34.13                 |

**VLF Antenna Array Site Emission Limits**

| Equipment | NO <sub>x</sub> lb/MMBtu | NO <sub>x</sub> lb/hr |
|-----------|--------------------------|-----------------------|
| VLF-B#6   | -                        | 1.22                  |
| VLF-B#15  | -                        | 0.65                  |
| VLF-D#1   | 3.20                     | 93.86                 |
| VLF-D#2   | 3.20                     | 102.40                |
| VLF-D#3   | 3.20                     | 102.40                |
| VLF-D#4   | 3.20                     | 102.40                |
| VLF-D#5   | 3.20                     | 102.40                |
| VLF-D#6   | 3.20                     | 25.60                 |
| DIE-09    | 4.41                     | 5.64                  |

D. For electrical power generating purposes at the VLF Antenna Array Site, only Diesel Unit #6 (VLF-D#6) may be operated when peak plant load demand drops below 750 kW averaged over a 2-hour period. NCTAMS LANT DET shall maintain records to document compliance with this condition and shall make the records available upon request by EPA or the Department.

The following shall replace Condition (21) of Part 70 License A-210-70-A-I:

(21) **Semiannual Reporting** [MEDEP Chapter 140]

The licensee shall submit semiannual reports every six months to the Bureau of Air Quality. The semiannual reports are due on July 31<sup>st</sup> and January 31<sup>st</sup> of each year. The semiannual report shall be considered on-time if the postmark of the submittal is before the due date or if the report is received by the DEP within seven calendar days of the due date.

- A. Each semiannual report shall include a summary of the periodic monitoring required by this license.
- B. All instances of deviations from license requirements and the corrective action taken must be clearly identified and provided to the Department in summary form for each six-month interval.

**The following shall replace Condition (22) of Part 70 License A-210-70-A-I:**

- (22) **Annual Compliance Certification** [MEDEP Chapter 140]  
NCTAMS LANT DET shall submit an annual compliance certification to the Department in accordance with Standard Condition (13) of this license. The annual compliance certification is due January 31 of each year.

The annual compliance certification shall be considered on-time if the postmark of the submittal is before the due date or if the report is received by the DEP within seven calendar days of the due date. Certification of compliance is to be based on the stack testing or monitoring data required by this license. Where the license does not require such data, or the license requires such data upon request of the Department and the Department has not requested the testing or monitoring, compliance may be certified based upon other reasonably available information such as the design of the equipment or applicable emission factors.

**The following are new conditions to Part 70 license A-210-70-A-I:**

- (28) **Asbestos Abatement**  
When undertaking Asbestos abatement activities, NCTAMS LANT DET shall comply with the Standard for Asbestos Demolition and Renovation 40 CFR Part 61, Subpart M. [40 CFR Part 61, Subpart M]

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- (29) NCTAMS LANT DET shall pay the annual air emission license fee within 30 days of **September 30th** of each year. Pursuant to 38 MRSA §353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for revocation of the license under 38 MRSA §341-D, subsection 3.  
[Title 38 MRSA §353-A]

DONE AND DATED IN AUGUSTA, MAINE THIS                      DAY OF                      2004.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: \_\_\_\_\_  
DAWN R. GALLAGHER, COMMISSIONER

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

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: November 24, 2003

Date of application acceptance: November 26, 2003

Date filed with the Board of Environmental Protection \_\_\_\_\_

This Order prepared by Mark Roberts, Bureau of Air Quality.