



STATE OF MAINE

DEPARTMENT OF ENVIRONMENTAL PROTECTION

ANGUS S. KING, JR.
GOVERNOR

EDWARD O. SULLIVAN
COMMISSIONER

PORTSMOUTH NAVAL SHIPYARD)	DEPARTMENTAL
YORK COUNTY)	FINDINGS OF FACT AND ORDER
KITTERY, MAINE)	AIR EMISSION LICENSE
A-452-71-D-A)	AMENDMENT #2

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 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

Portsmouth Naval Shipyard (PNSY) of Kittery, Maine was issued Air Emission License #1823 on August 27, 1980, permitting the operation of several emission sources, from their repair, retrofit and general maintenance facility for the U.S. Navy's submarines. PNSY requests an amendment to their air emission license to address VOC RACT requirements per Chapter 134 and NOx RACT requirements per Chapter 138 of the Department's regulations.

B. Application Classification

The application for Portsmouth Naval Shipyard is considered to be an amendment to incorporate the VOC RACT requirements as required by Chapter 134 and NOx RACT requirements as required by Chapter 138, of the Maine Air Regulations.

II. BEST PRACTICAL TREATMENT

A. Introduction

PNSY is in an attainment area for all U.S. EPA designated criteria air pollutants, except for ozone which is classified as moderate nonattainment. Chapter 134 of the Maine Air Regulations requires that every major source of VOC apply RACT to their applicable VOC emissions.

The VOC RACT analysis was conducted in a "top-down" manner for point and fugitive sources of VOC emissions at the Shipyard. Under the top-down approach,

Serving Maine People & Protecting Their Environment

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7633 FAX: (207) 237-7826
OFFICE LOCATED AT RAY BUILDING HOSPITAL STREET

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

BANGOR
106 HOGAN ROAD
BANGOR, ME 04401
(207) 941-4570 FAX: (207) 941-4533

PRESQUE ISLE
1235 CENTRAL DRIVE, SEAWAY PARK
PRESQUE ISLE, ME 04769
(207) 764-0477 FAX: (207) 764-1507

PORTSMOUTH NAVAL SHIPYARD)
YORK COUNTY)
KITTERY, MAINE)
A-452-71-D-A

DEPARTMENTAL
FINDINGS OF FACT AND ORDER
AIR EMISSION LICENSE
17 AMENDMENT #2

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, or increment standards either alone or in conjunction with emissions from other sources.

The Department hereby grants this amendment, A-452-71-D-A, subject to the conditions found in Air Emission License #1823, subsequent amendments, and in the following conditions:

- (1) Employees and authorized representatives of the Department shall be allowed access to the premises of the licensee during business hours, or any time during which any of the licensed emissions units are in operation, and at such other times as the Commissioner deems necessary for the purpose of performing tests, collecting samples, conducting inspections or examining records relating to emissions.
- (2) The licensee shall acquire a new or amended emission license prior to commencing construction of a modification.
- (3) The licensee shall comply with all applicable ambient air quality standards, emission standards, Department regulations and orders.
- (4) The licensee shall maintain sufficient records to accurately document compliance with emission standards, including visible emission, and license conditions and shall maintain such records for a minimum of 6 years. The records shall be submitted to the Department upon written request.
- (5) The licensee shall maintain records of malfunctions, failures, downtime, and any other change in operation of air pollution control apparatus or the emissions unit itself that would affect emissions. The licensee shall notify the Department within two working days (48 hrs.) of such occasions. Within 5 working days, the licensee shall submit a written report describing the cause, duration, remedial action, and steps to be taken to prevent recurrence of such malfunctions, failures or downtimes.
- (6) Approval to construct shall become invalid if the source has not commenced construction within 18 months after receipt of such approval or if construction is discontinued for a period of 18 months or more. The Department may extend this

PORTSMOUTH NAVAL SHIPYARD)
YORK COUNTY)
KITTERY, MAINE)
A-452-71-D-A

DEPARTMENTAL)
FINDINGS OF FACT AND ORDER)
AIR EMISSION LICENSE)
18 AMENDMENT #2

time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology requirements or the ambient air quality impact analysis, or both.

- (7) The licensee shall perform stack testing and submit a written report within 90 days of receipt of notice to test from the Department, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions. Such testing shall be conducted in accordance with 40 CFR Part 60 or other method approved or required by the Department. The licensee shall install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing.
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- (8) The licensee shall establish and maintain a continuing program for best management practices for suppression of fugitive particulate matter during any periods of construction, renovation, or normal operation which may result in fugitive dust and submit a description of the program upon request by the Department.
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- (9) The licensee shall maintain sufficient records and annually report to the Department, in a specified format, fuel use, operating rates, use of materials and other information necessary to accurately update the State's emission inventory.
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- (10) The granting of this permit is dependent upon and limited to the proposals and plans contained in the application and supporting documents submitted and affirmed to by the applicant. Any variation from the plans, proposals, and supporting documents must be reviewed and approved by the Department prior to implementation.
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- (11) Within 60 days receipt of a notification to test from the Department or EPA, or pursuant to any other requirement of this license to perform stack testing, the licensee shall perform stack testing in accordance with the Department's air emission compliance test protocol, and demonstrate compliance with the applicable emission standards. All testing performed pursuant to this condition shall be conducted under circumstances representative of the facility's normal process and operating conditions. Test results indicating emissions in excess of the applicable standards shall be evidence of emission violations subject to enforcement action for each operating day from the date of the test until compliance is demonstrated under normal and representative process and operating conditions. For any emission source whose stack test results yield an emission rate greater than the applicable

standard, the licensee shall, within 30 days following receipt of such test results, retest the noncomplying emission source. Any such retesting shall be performed under circumstances representative of the facility's normal process and operating conditions.

12) The total non-exempt fugitive VOC emissions (not including VOC emissions from degreasing operations) from the Portsmouth Naval Shipyard shall not exceed 48 tons per year based on a 12 month rolling total updated monthly and shall not exceed 15 tpy during any one calendar month, where:

- i. the first 12 months shall be from June 1, 1995 to May 31, 1996;
- ii. the pounds of VOC emissions are calculated by recording the VOC content (i.e. lb/gallons) of all material purchased and by recording the amount (i.e. gallons) of VOC containing material used at the facility. PNSY shall maintain records of the following:

- A. Beginning of Month Facility Storage
- B. Monthly Facility Purchases
- C. End of Month Facility Storage
- D. Quantity Shipped off Site

VOC emissions from PNSY shall be defined as follows, based on the information gathered from A. through D. above:

$$\text{Monthly VOC Emissions} = (A \times \text{VOC content}) + (B \times \text{VOC content}) - (C \times \text{VOC content}) - (D \times \text{VOC content})$$

- 13) PNSY, for the purpose of demonstrating ongoing non-applicability to the Shipbuilding MACT and ongoing compliance with VOC RACT requirements, shall continue to track HAP and VOC use and report the results to the MEDEP annually as is currently required under Chapter 137. PNSY shall track and record the quantity and VOC content of all coatings used at the Shipyard.
- 14) The coatings, solvents, and paints used at PNSY shall not exceed 3.5 pounds of VOC per gallon. In the event that small amounts of specialty coating with a higher VOC content is needed, than emissions averaging over a monthly period will be allowed to provide the flexibility necessary for overall compliance. PNSY shall use high volume, low pressure (HVLP) design spray guns for all spraying operations.
- 15) PNSY shall maintain "Good Housekeeping" practices, including but not limited to: careful application of aerosol spray materials, sealing of VOC material containers to reduce evaporative loss, and proper personnel training in the use of VOC application equipment and clean-up activities.

PORTSMOUTH NAVAL SHIPYARD)
YORK COUNTY)
KITTERY, MAINE)
A-452-71-D-A

DEPARTMENTAL)
FINDINGS OF FACT AND ORDER)
AIR EMISSION LICENSE)
20 AMENDMENT #2

- 16) PNSY shall limit NO_x emissions from Boiler #2, #3, #4 and #5 to 0.40 lb/MMBtu during the non-ozone heating season and 0.35 lb/MMBtu during the ozone season (May 1 - Sept 30). After the conversion to burn natural gas, the boilers will meet a more stringent NO_x emission limit.

- 17) The conversion to burn natural gas as the primary fuel, with #2 fuel oil as back-up, in Boilers #2, #3, #4, and #5 shall meet the following schedule:
 - Start construction - 1997
 - Boiler 3 conversion - by January 1, 1999
 - Boiler 4 conversion - by October 1, 1999
 - Boiler 5 conversion - by July 1, 2000
 - Boiler 2 conversion - by December 31, 2000

- 18) If the schedule to convert the boilers at PNSY is not met, than the boilers will be retrofitted to achieve the RACT emission limit of 0.30 lb NO_x/MMBtu. PNSY shall update the MEDEP on an annual basis as the gas conversion project progresses.

- 19) PNSY shall perform NO_x emission stack testing for Boilers #2, #3, #4, and #5 in accordance with 40 CFR Part 60 or other methods approved or required by the Department, to demonstrate their ability to meet 0.35 lb/MMBtu NO_x emission limit during the ozone season (May 1 - Sept 30) by June 30, 1996. PNSY shall continue to demonstrate NO_x RACT compliance, during the ozone seasons, by stack testing every year thereafter until the boilers are converted to combust natural gas with distillate oil as backup.

- 20) To reduce NO_x, PNSY shall retard the injection timing on the compressors' diesels engines. The diesels that operate the cranes meet RACT by their current configuration, maintenance schedule, and operation. All other reciprocating engines must record and operate less than 500 hours per year and operate according to the requirements of the Air Bureau's March 1995 SICE Guideline.

PORTSMOUTH NAVAL SHIPYARD)
YORK COUNTY)
KITTEERY, MAINE)
A-452-71-D-A

DEPARTMENTAL)
FINDINGS OF FACT AND ORDER)
AIR EMISSION LICENSE)
21 AMENDMENT #2

21) This amendment shall be reviewed for renewal concurrent with air emission license #1823.

DONE AND DATED IN AUGUSTA, MAINE THIS 21st DAY OF October 1996.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: James P. Brooks for
EDWARD O. SULLIVAN, COMMISSIONER

PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application May 10, 1995

Date of application acceptance May 15, 1995

Date filed with the Board of Environmental Protection _____

This Order prepared by Edwin L. Cousins, Bureau of Air Quality

