4.4 Operable Unit 2 Remedy Implementation

The implementation of the OU2 remedy is briefly summarized below. A more detailed description can be found in the Report on the Effects of the Hot Spot Dredging Operations (EPA, 1997) and the Remedial Action Report for OU2 (EPA, 2000).

About 14,000 cubic-yards of hot spot sediments were dredged from the upper harbor during the 1994-95 construction seasons. The hot spot sediments were temporarily stored in an on-site CDF while alternatives to on-site incineration were evaluated. As discussed above, in April 1999, EPA signed an amendment to the 1990 OU2 ROD which called for off-site landfilling instead of on-site incineration. A contract to implement the amended hot spot remedy was awarded in October 1999. Transportation of the passively dewatered hot spot sediments to an off-site TSCA permitted hazardous waste disposal facility started in December 1999 and was completed in May 2000.

4.5 Operable Unit 3 (Outer Harbor) Remedy Selection

The EPA has not yet selected a remedy for the 17,000 acre OU3. As discussed above in section 4.2.4, however, EPA recently completed a pilot underwater capping study for the most highly contaminated area in the outer harbor (based on existing data), in addition, EPA is pursuing alternative funding sources to complete the OU3 RI/FS.

5.0 PROGRESS SINCE THE LAST REVIEW

This is the first five-year review for the Site.

6.0 FIVE-YEAR REVIEW PROCESS

6.1 Administrative Components

The New Bedford Harbor site's five-year review team was led by Mr. James Brown and Mr. David Dickerson, EPA Region 1 co-project managers for the site. The review components included:

- on-going site inspection;
- review of project documents and After Action Reports;
- review of data reports;
- review of cleanup levels and risk calculations
- development and review of the Five-Year Review Report.

Soon after the review and approval of this Five-year Review Report, a notice will be placed in a local paper(s) announcing that it is complete and available to the public at the two Site repositories listed below (in addition to the project web site):

Five-Year Review Report

First Five-Year Review Report
for the

New Bedford Harbor Superfund Site

Bristol County, Massachusetts

September 2005

Prepared by the
United States Environmental Protection Agency
Region 1, New England
Boston, Massachusetts

EPA
New England

Approved by:

Susan Studlien

Susan Studlien, Director
Office of Site Remediation and Restoration
U.S. EPA, New England

Date:

09/30/05

RECORD OF DECISION
REMEDIAL ALTERNATIVE SELECTION

Site Name and Location

New Bedford Harbor/Hot Spot Area
New Bedford, Massachusetts

SDMS DocID 000218788

Statement of Purpose

This Decision Document presents the selected remedial action for this Site developed in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (CERCLA), and to the extent practicable, the National Contingency Plan (NCP), 40 CFR Part 300 et seq., 50 Federal Register 47912 (November 20, 1985).

The Commonwealth of Massachusetts concurs with the selected remedy. A copy of the concurrence letter is included as Appendix C.

Statement of Basis

This decision is based on the Administrative Record which was developed in accordance with Section 113 (k) of CERCLA and which is available for public review at the information repositories located at the New Bedford Free Library, in New Bedford, Massachusetts, and at the EPA offices at 90 Canal Street in Boston, Massachusetts. Appendix B to this document identifies the items contained in the Administrative Record upon which the selection of this remedial action is based.

Assessment of the Site

Actual or threatened releases of hazardous substances from this portion of the Site, if not addressed by implementing the response action selected in this Record of Decision, may present an imminent and substantial endangerment to public health, welfare or the environment.

Description of the Selected Remedy

The selected remedial action for the New Bedford Site/Hot Spot Area is the Hot Spot Operable Unit, the first of two operable units planned for the New Bedford Harbor Superfund Site. The Hot Spot Operable Unit consists of source control measures, which will also control the continuing migration of contaminants from the Hot Spot to other portions of the Site. The major components of the Hot Spot remedial measures include:

- Dredging. Approximately 10,000 cubic yards of contaminated sediments will be removed using a cutterhead dredge. Dredging will occur in the Hot Spot Area at depths of up to four feet to remove sediments with PCB concentrations of 4,000 ppm or greater. Various control options will be used to minimize and control sediment resuspension.

- Transportation and Dewatering. The dredged sediments will be transported to the Pilot Study cove area by a floating hydraulic pipeline, where the sediments will be dewatered. Effluent produced during the dewatering process will be treated to reduce PCBs and heavy metals using best available control technology prior to discharge back into the Harbor.

- Incineration. The dewatered sediments will be incinerated in a transportable incinerator that will be sited at the Pilot Study cove area. The extremely high temperatures achieved by the incinerator will result in 99.9999% destruction of PCBs. Exhaust gases will be passed through air pollution control devices before being released into the atmosphere to ensure that appropriate health and safety and air quality requirements are met.

- Stabilization. Following incineration, the Toxicity Characteristic Leaching Procedure (TCLP), a leaching test, will be performed on the ash to determine if it exhibits the characteristic of toxicity and is, therefore, considered a hazardous waste under the Resource Conservation and Recovery Act (RCRA). If the TCLP test reveals that the ash is a RCRA hazardous waste, the ash will be solidified such that metals no longer leach from the ash at concentrations that exceed the standards set forth for determining the toxicity of a material.

During remedial activities, (solidified) ash will be temporarily stored in an area adjacent to the existing Confined Disposal Facility (CDF), a containment structure built on the New Bedford Harbor shoreline during previous Site studies. Following completion of the remedial activities, the (solidified) ash will be stored in the secondary cell of the CDF. Storage of the treated material will comply with the solid waste requirements. Ultimate disposition of this material will be addressed in the second operable unit for the Site.

Sediment removal and incineration will provide significant progress toward long-term protection of public health and the environment. Incineration is a proven technology that permanently destroys PCBs and is readily implementable for this volume of material. The selected remedy will permanently reduce the mobility, toxicity and volume of PCBs in the Hot Spot and will also reduce the amount of PCBs and heavy metals affecting the remainder of the Harbor. Short-term protection will be