

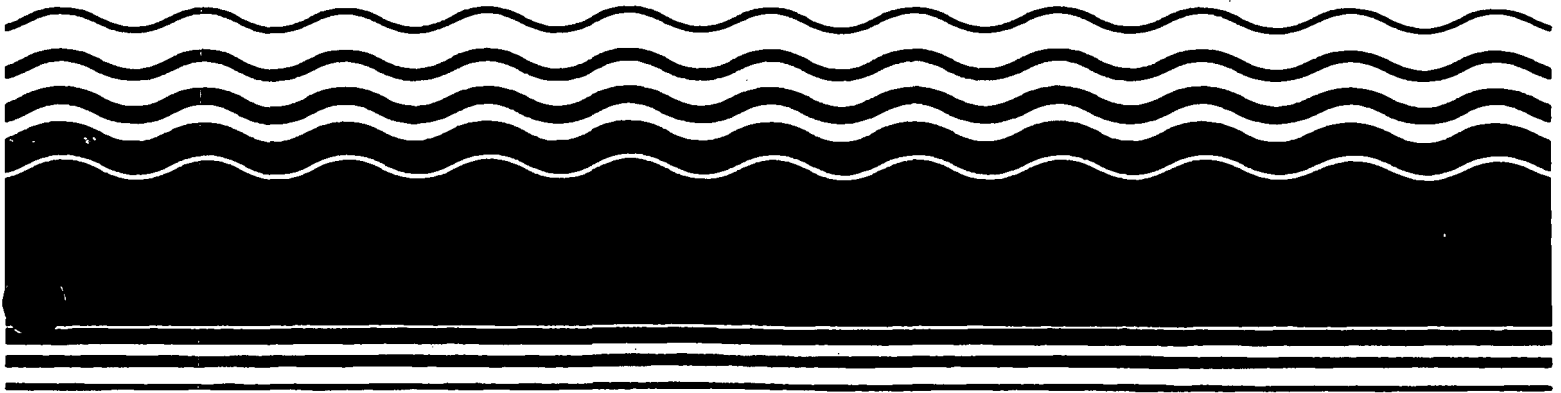
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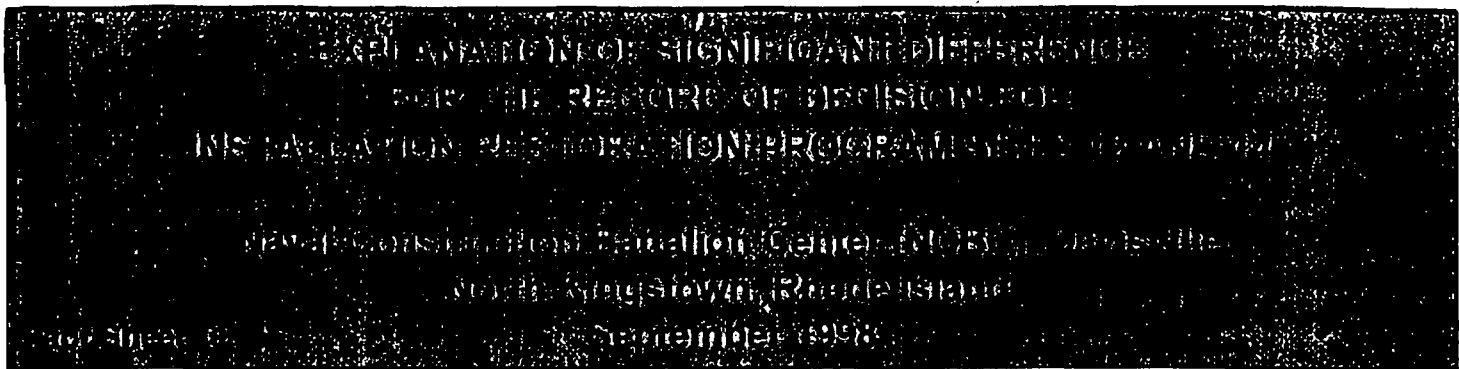
EPA 541-R98-121

March 1999

**EPA Superfund
Explanation of Significant Difference
for the Record of Decision:**

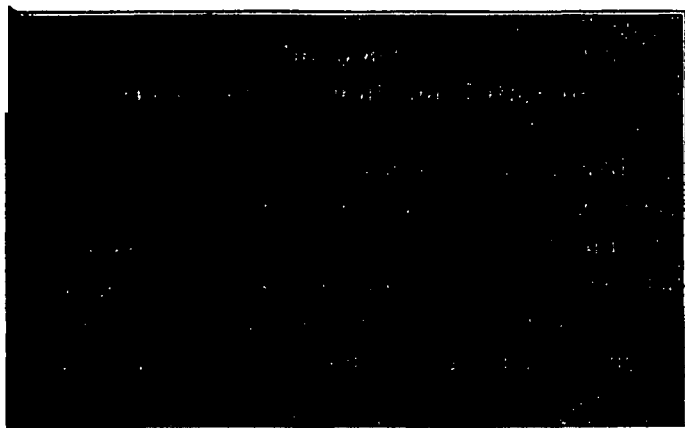
**Davisville Naval Construction
Battalion Center
North Kingston, RI
9/30/1998**





Introduction

This fact sheet presents the Navy's Explanation of Significant Difference (ESD) on the Record of Decision (ROD) completed for Site 12 and Site 14 at NCBC Davisville, Rhode Island. Site 12 is the Defense Property Disposal Office (DPDO) Transformer Oil Spill Area at Building 316 in the West Davisville portion of NCBC Davisville. Site 14 is the Transformer Oil Leak at Building 38 in the Warehouse Area of the main center at NCBC Davisville.



Sites 12 and 14 were investigated under the Navy's Installation Restoration (IR) Program. The IR Program identifies and investigates environmental sites of concern that resulted from past military use and operations. The ROD phase of the IR Program outlines the selected remedy to address environmental concerns at a site. The ROD for Sites 12 and 14 was signed on 23 September 1993 and specified a deed restriction as well as the removal of oil and asphalt/concrete that contained concentrations of polychlorinated biphenyls (PCBs) greater than 10 parts per million (ppm).

Historically, PCBs were a common component in transformer oil. Remedial actions at both sites have been completed.

Description of the ESD

The ROD outlined the selected remedy for environmental impacts at Sites 12 and 14. This ESD documents a modification to the ROD for Sites 12 and 14 that significantly changes, but does not fundamentally alter, the selected remedy. The change to the remedy for Sites 12 and 14 does not alter the decision to remove asphalt/concrete and soil containing elevated PCB concentrations. Rather, the change pertains to the "institutional controls" component of the remedy that would have prevented residential reuse of the property. Due to the amount of PCB removal that has been completed at Sites 12 and 14, soil and concrete at the sites do not pose unacceptable risks for residential reuse. Therefore, a deed restriction (institutional controls) on the property at Sites 12 and 14 is no longer required. Due to the amount of cleanup at the sites, the 5-year review called for in the ROD is also not required.

Statutory Basis for Issuance of the ESD

Under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 117(a), the National Contingency Plan (NCP) 300.435(c), and Environmental Protection Agency (EPA) guidance (OSWER Directive 9355.3-02), the lead agency may determine that a significant change to the selected remedy, as described in a ROD, is necessary after the ROD is issued. EPA guidance categorizes changes to a ROD as either *non-significant or minor change*; a *significant change* to

a component of the remedy; or a *fundamental change* to the overall remedy. The Navy, as lead agency for NCBC Davisville, has determined that a significant change to a component of the remedy (institutional controls and 5-year review) will be made. However, the fundamental remedy at Sites 12 and 14 (removal of asphalt/concrete and soil with PCB concentrations greater than 10 ppm) has already been completed. The Navy is required to publish an explanation of a significant change and the reason the change is being made.

In accordance with Section 300.435(c) of the NCP, this ESD and supporting information will be placed with the Administrative Record for Sites 12 and 14. The Administrative Record is available for public review at the Caretaker Site Office, 1330 Davisville Road, North Kingstown, RI, and the information repository at the North Kingstown Public Library.

NCBC Description

NCBC Davisville was placed on the National Priorities List (NPL) in 1989. Pursuant to CERCLA 120(e), the Navy, EPA, and the Rhode Island Department of Environmental Management (RIDEM) entered into a Federal Facilities Agreement (FFA) dated 23 March 1992 regarding the cleanup of environmental sites at NCBC Davisville. The FFA sets forth the roles and responsibilities of each of the parties to the agreement. Under the IR Program, the Navy is the "lead agency" for all environmental investigations at NCBC Davisville in coordination with the EPA Region I and RIDEM as the federal and state "supporting agencies". In October 1991, NCBC Davisville was approved for closure under the Base Realignment and Closure (BRAC) program. NCBC Davisville was decommissioned on 25 March 1994 and closed on 1 April 1994.

The main center of NCBC Davisville is located in the Town of North Kingstown, Rhode Island, approximately 18 miles south of Providence. The base is adjacent to the western shore of Narragansett Bay. A portion of the base, Camp Fogarty, is located approximately 4 miles west of the main center in East Greenwich, Rhode Island. Camp

Fogarty was transferred to the U.S. Army in 1993 and is assigned to the Rhode Island National Guard.

Site Description

Site 12 is located in Bay B of Building 316 in West Davisville, approximately 1 mile west of the main center. West Davisville is bordered to the north and west by railroad tracks, the east by Mike Road and to the south by a gravel road adjacent to a section of Sandhill Brook known as Black Swamp.

Site 14 is located in the South Bay of Building 38 in the northeastern portion of the Warehouse Area of NCBC's main center. The area is bounded by Davisville Road to the north, Davol Pond on the east and property that was the former Naval Air Station, Quonset Point and now is the property of the Rhode Island Development Corporation (RIEDC), on the west and south.

History of Site 12, Bay B, Building 316, West Davisville

Building 316 was constructed in 1953 on a fill area that was created in 1941 and used as a facility to manufacture and assemble Quonset hut kits during World War II. Until 1993, Building 316 was used as a warehouse for storage of various materials. From 1972 to 1984 in Bay B of Building 316, the Navy DPDO stored transformers (containing PCBs) pending disposal. In 1977, a forklift punctured a transformer causing an unknown quantity of oil to leak within the building. At that time, the oil was cleaned from the concrete floor.

History of Site 14, South Bay, Building 38, Warehouse Area

Building 38 was constructed in 1942 in the northeast corner of the Warehouse Area of the main center. Building 38 was used as a bulk storage warehouse for advanced base construction materials. After the closure of NAS Quonset Point in 1973, Building 38 became part of the facilities used by the Public Works Department. Electrical transformers were stored in a section of the South Bay and, in 1981, an

oil spillage of an unknown quantity on the asphaltic concrete floor was noticed.

Enforcement and Remedial Action History for Site 12

The transformer oil spill was identified in the 1984 Initial Assessment Study (IAS) and, subsequently, the area was designated as IR Program Site 12. The IAS recommended confirmatory sampling at Site 12. Site 12 was included in the March 1992 FFA.

In October 1984, the Navy detected PCBs in a composite sample of the concrete floor (specifically, Aroclor-1260 at a concentration of 91 ppm). In March 1986, PCBs were detected in 15 wipe samples from the concrete floor at concentrations ranging from 0.4 to 3.0 micrograms per square inch ($\mu\text{g}/\text{in}^2$). In 1991, the Navy conducted an Interim Remedial Action (a pre-ROD action) to remove and dispose of PCB-contaminated concrete and soil from the site. In post-removal samples, the Navy detected the presence of PCBs in the subgrade and concrete surrounding the removal location. In September 1991, EPA collected concrete chip samples from the surrounding floor to determine the extent of contamination, with results as high as 1,200 ppm.

The September 1993 ROD for Site 12 called for the removal of all concrete and soil with PCB concentrations greater than 10 ppm. Because the cleanup level of 10 ppm was based on industrial use of the site, the ROD also required that institutional controls be implemented to prevent future residential use of the site and a 5-year review to reassess the protectiveness of the remedy. Remedial action under the ROD began in January 1995 with removal of concrete and soil from areas containing greater than 10 ppm PCB as identified by the EPA survey and previous sampling events. Several stages of removal were required before all confirmatory samples were below 10 ppm PCB as documented in the *Contractor's Close-out Report for the Remediation of Installation Restoration Program Site 12* (Foster Wheeler Environmental Corporation, September 1997). The remainder of Bay B was then sampled in a grid pattern. Elevated concentrations of PCBs were identified in three grid locations adjacent to the

removal area. These additional areas were subsequently scabbled (scraped) to remove PCBs greater than 10 ppm. The Navy completed the removal action and issued a Close-Out report.

Utilizing the recent post-removal data, the Navy conducted a Human Health Risk Assessment (HHRA) for the site. The results indicated that residual PCB concentrations at the site are within acceptable risk values for unrestricted future use of the property.

Enforcement and Remedial Action History for Site 14

The transformer oil spill was identified in the 1984 IAS and, subsequently, the area was designated as IR Program Site 14. The IAS recommended confirmatory sampling for Site 14. Site 14 was included in the March 1992 FFA.

In 1991, the Navy conducted an Interim Remedial Action to remove PCB-contaminated asphaltic concrete and soil from the spill site. Post-removal samples indicated the presence of PCBs in the subgrade and asphaltic concrete surrounding the removal location. In September 1991, EPA collected asphaltic concrete chip samples from the surrounding floor to determine the extent of contamination with results as high as 150 ppm.

In September 1993, the ROD for Site 14 called for removal of all asphaltic concrete and soil with concentrations greater than 10 ppm. Because the cleanup level of 10 ppm was based on industrial use of the site, the ROD also required that institutional controls be implemented to prevent future residential use of the site and a 5-year review to reassess the protectiveness of the remedy. Remedial action under the ROD began in January 1995 with removal of asphaltic concrete and soil from areas containing greater than 10 ppm PCB as identified by the EPA survey and previous sampling events. Several stages of removal were required before all confirmatory samples were below 10 ppm PCB as documented in the report *Final Closure Summary Report PCB Contamination Removal Site 14, Building 38, at the Naval Construction Battalion Center Davisville,*

Rhode Island (HRP Associates, November 1996).

Utilizing the post-removal data, the Navy conducted a HHRA for the site. Results indicated that residual PCB concentrations are within acceptable risk values for unrestricted future use of the property.

Summary of the Navy's Record of Decision and Remedial Action

The ROD for Sites 12 and 14 requires that "All removal areas and adjacent non-removal areas will be sampled subsequent to the removal activities to ensure that cleanup levels have been met. Because cleanup goals are based on industrial use of the sites, institutional controls will be implemented to ensure the sites are not used in the future for residential use." Furthermore, the ROD required a 5-year review to reassess the protectiveness of the remedy.

Between 1991 and 1997, the Navy removed asphalt/concrete and soil at Sites 12 and 14 with greater than 10 ppm of PCB.

Justification for this ESD

The original clean-up level set in the 1993 ROD for Sites 12 and 14 was 10 ppm for total PCBs, which was the level that would be protective of industrial workers, not residential inhabitants. Therefore, the ROD required the Navy to implement institutional controls that included land-use deed restrictions to prevent residential reuse of the sites and a 5-year review to reassess the protectiveness of the remedy.

However, the 95% Upper Confidence Limit (UCL) of the actual confirmatory sample results demonstrated that the Navy had achieved a much lower clean-up level across Site 12 (less than 2 ppm) and Site 14 (less than 4 ppm) than required by the ROD. These actual clean-up levels are protective of unrestricted use. Furthermore, RIDEM's Remediation Regulations, as amended in August 1996, establish a PCB concentration of 10 ppm as the criterion for residential use. Therefore, the achieved clean-up levels across the sites are protective of future residents and, therefore, no institutional controls are required and no 5-year review is required for Sites 12 and 14.

Utilizing the information from the post-removal sampling events at Sites 12 and 14, the Navy performed Human Health Risk Assessments (HHRA) to characterize the potential cancer and non-cancer risks at the sites as they now exist. The Navy determined that risks to human health are within acceptable values such that it is not necessary to restrict the sites from future residential use.

The HHRA for Site 12 indicated that risk values for residual PCBs in concrete are within the EPA's acceptable cancer risk range of 10^{-4} to 10^{-6} (one-in-ten thousand to one-in-one million) and the non-cancer risks are low (slightly above 1). Furthermore, in the event that Site 12 is used for future residential use, the buildings and foundation would likely be demolished/removed.

The HHRA for Site 14 indicated that risk values for residual PCBs in soil and asphaltic concrete are within EPA's acceptable risk range of 10^{-4} to 10^{-6} and the non-cancer risks are low (slightly above 1). Furthermore, in the event that Site 14 is used for future residential use, the building and foundation would likely be demolished/removed.

Based on the 95% UCL of the post-removal confirmatory samples and the new HHRA calculations, the Navy will transfer the property for unrestricted use. Therefore, the institutional control component specified in the ROD (deed restriction) is no longer required nor is a 5-year review required.

Support Agency Comments

EPA and RIDEM reviewed the draft ESD and provided comments that the Navy has incorporated into this final document. RIDEM's letter of concurrence on the ESD was signed on 17 September 1998 and sent out on 21 September 1998. EPA concurred with the ESD on 30 September 1998.



Affirmation of the Statutory Determinations

The proposed change to the selected remedy described in the September 1993 ROD for Site 12 and Site 14 to transfer the property for unrestricted use will continue to satisfy all statutory requirements of CERCLA and the NCP. The altered remedy remains protective of human health and the environment, complies with federal and state applicable or relevant and appropriate requirements (ARARs), and remains cost-effective.

Public Participation

No formal public comment period is required for an ESD to a previously issued ROD. However, in the interest of community awareness, the Navy provided this fact sheet to everyone on the NCBC Davisville community mailing list and has included the ESD and supporting information in the Administrative Record for the sites. In accordance with CERCLA Section 117(c), the Navy will publish a notice of availability for review and a brief explanation of the ESD in the *Providence Journal-Bulletin* and the *Weekly Standard Times*.

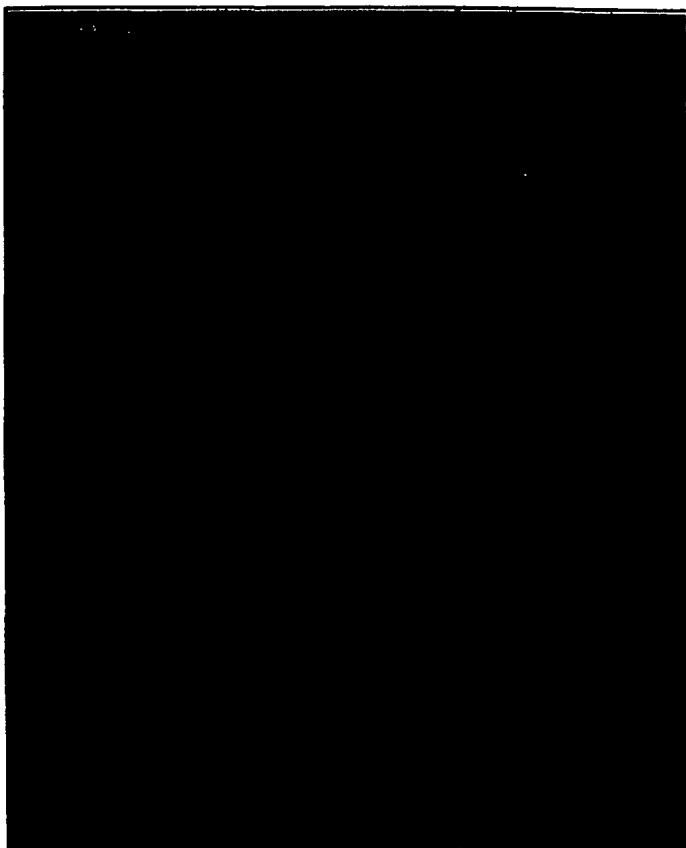
For More Information

If you have questions about the ESD for Sites 12 and 14 at NCBC Davisville, or if you would like further information, please contact:

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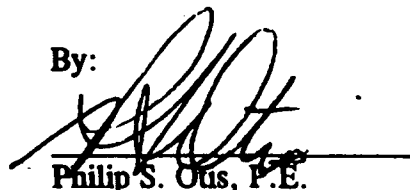
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Declaration

The issuance of this ESD for Sites 12 and 14 at NCBC Davisville, Rhode Island is approved.

By:


Philip S. Otis, P.E.

BRAC Environmental Coordinator
NCBC Davisville, RI

9/29/98
Date