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PROPOSED PLAN FOR SOIL REMEDY AT TRUMAN ANNEX BUILDING 136 NAS KEY WEST  
FL  
9/19/1999  
NAS KEY WEST



## PROPOSED PLAN



### Naval Air Station Key West, Florida

**Facility/Unit Type:** Former Location of Building 136  
**Contaminants:** Inorganics and SVOCs  
**Media:** Soil  
**Remedy:** Land-Use Controls

#### INTRODUCTION

This Proposed Plan is issued by the U.S. Navy, the lead agency for Naval Air Station (NAS) Key West remedial activities, with concurrence by the U.S. Environmental Protection Agency (EPA) and the Florida Department of Environmental Protection (FDEP). The proposed remedial activities are conducted under the Department of Defense's Base Realignment and Closure (BRAC) program in accordance with Section 120 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the National Contingency Plan (NCP), and the FDEP Brownfields Cleanup Criteria Rule (62-785 F.A.C.). The former location of Building 136 at Truman Annex is the area of interest and is known as Parcel E, Subzone 2.

This Proposed Plan identifies the proposed remedy for the former location of Building 136 at NAS Key West, explains the rationale for the preference, solicits public review and comments on the conclusions of the Supplemental Site Inspection (SSI), and provides information as to how the public can be involved in the remedy selection process. The Proposed Plan provides a summary of past environmental work at the former location of Building 136. This document provides key highlights of the SSI Report but should not be used as a substitute. Additional details regarding the site and the investigation conducted may be found in the SSI Report that is kept as part of the information repository. Please refer to the cover letter for the repository location.

The public is encouraged to comment on the proposed remedy. The U.S. Navy emphasizes that the proposed remedy is the initial recommendation of the Agency. Changes to the proposed remedy, or a change from the proposed remedy to another remedy, may be made if public comments or additional data indicate that such a change would result in a more appropriate solution.

#### PROPOSED REMEDY

The proposed remedy is land-use controls because contamination at the site has been sufficiently remediated. Minimal costs are associated with implementing and administering these land-use controls.

#### FACILITY BACKGROUND

The former location of Building 136 is located in the area known as the Inner Mole Pier. The area has served as a naval docking and support facility for more than a century. Most records of the area date back to the period of World War II. In the late 1980s, the Inner Mole Pier waterfront was refurbished along with the Outer Mole Pier. Building 136 (Shipfitters and, prior to 1951, the Plate and Mold Shop) was demolished and the debris was buried in and around the building's footprint, but the debris was later removed for disposal. The area around the former location of Building 136 is currently level graded limestone.

The Site Inspection (SI) sample results for the former location of Building 136 indicated three semivolatile organic compounds (SVOCs); benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene at concentrations in excess of their respective FDEP residential action levels of 100 µg/kg, 1400 µg/kg, and 1400 mg/kg. Arsenic was also found at a concentration in excess of the NAS Key West Partnering Team selected action level of 2.7 mg/kg. Interim Remedial Action (IRA) delineation sampling identified an additional inorganic (iron) in excess of it's EPA action level of 23,000 mg/kg and one SVOC [benzo(a)anthracene] in excess of it's FDEP action level of 4900 µg/kg. Action levels were adjusted using EPA guidance to appropriately compare composite sample data collected during delineation. The Engineer's Estimate/Cost Analysis (EE/CA) for Alternatives for BRAC Fast Track Soil Removal Parcels and the Action Memorandum for BRAC Fast Track Soil

Removal Parcels briefly describe contamination at the former location of Building 136, remedial alternatives evaluated for the IRA, and costs associated with remediation. The SSI Report describes in detail the delineation sampling, the IRA performed, and the locations and results of confirmation samples taken at the site.

The IRA at the former location of Building 136 removed almost 3,000 cubic yards of contaminated soil to a depth of 2 feet as shown in Figure 1. Benzo(b) fluoranthene and indeno(1,2,3-cd)pyrene showed a reduction in concentration from 1510 µg/kg and 1470 µg/kg respectively before excavation to 511 µg/kg and 554 µg/kg following excavation. Iron and benzo(a)anthracene also showed a reduction in concentration from 15000 mg/kg and 894 µg/kg before excavation to 2390 mg/kg and 701 µg/kg after excavation. Arsenic showed reductions from a range of 2.7 mg/kg to 4.5 mg/kg at seven locations before excavation to only one result above the detection limit at 2.9 mg/kg. Benzo(a)pyrene exceeded its action level at seven SI and SSI sample locations with a concentration range of 225 µg/kg to 765 µg/kg before excavation and the levels following excavation range from 112 µg/kg to 591 µg/kg at five locations. However, locations where arsenic and benzo(a)pyrene were left in place at levels in excess of action levels are in areas where the excavation was completed to an existing structure (road, concrete pad, or underground utility); which provides engineering controls to cap soil and limit possible exposure. Clean fill was placed in the excavation to return the site to grade.

The soil removal activities were performed in accordance with the FDEP Brownfields Cleanup Criteria Rule, No Further Action Criteria [62-785.680 F.A.C.] that provided a secondary regulatory driver to the site action levels. The regulation addresses no-further-action remedies with institutional control section, below, and engineering controls (Refer to the Land-Use Controls for definitions) such as alternate cleanup criteria for the soil contaminant concentrations 2 feet below land surface. These cleanup criteria were implemented during the soil removal activities at the site. The no-further-action regulation also addresses the use of permanent cover and containment material to prevent human exposure and limit water infiltration. The asphalt- and concrete-covered areas found during excavation activities meet the definition of permanent cover material.

## **SCOPE OF THE REMEDIAL ACTION**

### **Land-Use Control**

In accordance with U.S. Navy and FDEP policies, the site remedy will include land-use controls. These remedies are often used when contamination poses low, long-term threats to the environment or

where full treatment is impracticable. Land-use controls may include engineering controls and institutional controls. Engineering controls include signs, guards, landfill caps, provisions for potable water, sheet pile, pumping and treatment of groundwater, monitoring wells, and vapor extraction systems. Institutional controls are a variety of legal devices imposed to ensure that the engineering controls stay in place or, where there are no engineering controls, to ensure the restrictions on land use stay in place. Institutional controls include easements, covenants, permits, notices (in deeds, newspapers, etc.) zoning, agreements with regulators, and land-use control maintenance reporting.

Soil excavation at the former location of Building 136 was impeded by concrete and asphalt road surfaces and underground utility casement. Each of these impediments provide engineering controls to the remaining soil contaminants preventing exposure of the soil to the environment. Further, the excavation of all of the remaining contaminated soils was not deemed practical due to the possible adverse impacts on the road and inner mole pier.

The land-use controls at the former location of Building 136 will include deed restrictions (institutional control) that will require anyone who disturbs structures identified as a permanent cover and/or containment material, do so in compliance with appropriate laws and regulations. For example, future workers who disturb these areas shall be in compliance with Occupational Safety and Health Administration (OSHA) regulations (promulgated under Chapter 29 of the Code of Federal Regulations, Section 1910.120) and appropriate Resource Conservation and Recovery Act (RCRA) and CERCLA laws as a result of elevated arsenic and benzo(a)pyrene concentrations in soils.

### **Alternative Remedial Action**

As required by the Department of the Navy Environmental Policy 99-02; Land-Use Controls, an alternative that provides for unrestricted property use was evaluated for the former location of Building 136. Under this alternative; two roads and the Inner-Mole Pier would be partially excavated. Due to the possible adverse impact on roads and the pier and the current level of protection provided by these structures, this alternative was not selected.

The U.S. Navy recognizes that CERCLA allows various options for implementing remedies based on site conditions. For the former location of Building 136 at NAS Key West, the SSI Report indicates that the IRA (soil removal) reduced the threat to human health and the environment to acceptable levels in accordance with CERCLA, the NCP, and the FDEP Brownfields Cleanup Criteria Rule. Therefore, there is sufficient justification to propose land-use controls for the site. There are no costs to implement land-use controls.

**NAS Key West Contact**

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**NEXT STEPS**

Following a 30-day public comment period, the U.S. Navy will issue a final decision on the proposed remedy. The Decision Document, which will describe the remedy chosen for the former location of Building 136 and other BRAC sites, will include responses to oral comments received during the public comment period. Concurrence from EPA and FDEP will be obtained before implementing the final remedy.

