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PROPOSED PLAN FOR SOIL REMEDY AT TRUMAN ANNEX BUILDING 103 NAS KEY WEST
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PROPOSED PLAN



Naval Air Station Key West, Florida

Facility/Unit Type: Truman Annex Building 103
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.). Building 103 at the Truman Annex is the area of interest and is known as Parcel E, Subzone 9.

This Proposed Plan identifies the proposed remedy for Building 103 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 Truman Annex Building 103. 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

Building 103 is located in an 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 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 103 (Former Central Power Plant) is still standing but is out of service. Knowledge of the operations in this building is limited to naval submarine support activities.

The Site Inspection (SI) sample results at Building 103 indicated several semivolatile organic compounds (SVOCs) and one polychlorinated biphenyl (PCB) in excess of FDEP action levels. Benzo(a)pyrene was found in excess of its 100 micrograms per kilogram ($\mu\text{g}/\text{kg}$) FDEP action level with a concentration of 31,800 $\mu\text{g}/\text{kg}$. Benzo(a)anthracene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene, were found to exceed their FDEP action level of 1400 $\mu\text{g}/\text{kg}$ with concentrations of 40100 $\mu\text{g}/\text{kg}$, 48900 $\mu\text{g}/\text{kg}$, and 15600 $\mu\text{g}/\text{kg}$ respectively. Benzo(k)fluoranthene was found to exceed its FDEP action level of 14000 $\mu\text{g}/\text{kg}$ with a concentration of 20900 $\mu\text{g}/\text{kg}$. Aroclor-1254 a PCB was found to exceed its FDEP action level of 900 $\mu\text{g}/\text{kg}$ at two locations with concentrations of 1820 $\mu\text{g}/\text{kg}$ and 2160 $\mu\text{g}/\text{kg}$. 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 Building 103, remedial alternatives evaluated for the Interim Remedial

Action (IRA), and costs associated with remediation. The SSI Report describes in detail the SSI sampling, the IRA performed, and the locations and results of confirmation samples taken at the site.

The IRA at Building 103 removed contaminated soil to depths ranging from 2 to 6 feet at the two areas shown in Figure 1. One excavation is located on the west side of Building 103, and the other is located between Buildings 103 and 104. A total of 1,022 cubic yards of contaminated soil was removed from the area between Buildings 103 and 104. Eleven confirmation samples were collected from the perimeters of the excavations and analyzed for SVOCs and PCBs. Indeno(1,2,3-cd)pyrene and benzo(k)fluoranthene showed a reduction in concentrations following the excavation to levels below the detection limit (not detected). Also the area west of Building 103 showed a reduction of aroclor-1254 to below the detection limit following the excavation. Benzo(a)anthracene showed a reduction in concentration from 40100 µg/kg before excavation to 2180 µg/kg following excavation. Benzo(a)pyrene and benzo(b)fluoranthene showed reductions from 31800 µg/kg and 48900 µg/kg before excavation to ranges of 112 µg/kg – 1600 µg/kg [for benzo(a)pyrene] and 1600 µg/kg to 2600 µg/kg [for benzo(b)fluoranthene] following the excavation. Dibenzo(a,h)anthracene which was not found at levels in excess of its FDEP action level of 100 µg/kg during SI sampling did exceed the action level in two confirmation samples with concentrations of 364 and 246 µg/kg. However locations where benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and dibenzo(a,h)anthracene were left at levels in excess of FDEP action levels are in the areas where the excavation was completed to an existing structure (concrete pad, Building 103, or Building 104); 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 sample north of Building 103 (Figure 1) where Aroclor-1254 was found at 1820 µg/kg is in excess of the FDEP action levels. The NAS Key West Partnering Team determined that the detected level of only one parameter (Aroclor-1254) does not pose a risk that warrants excavation.

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 controls and engineering controls (refer to the Land-Use Control section, below, for definitions) such as alternate cleanup criteria for the soil contaminant concentrations 2 feet below land surface. The 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 around Building 103. In addition, it was determined that the concrete foundations in the ground provided a permanent containment to the migration of contaminants in accordance with the regulation.

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 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 Building 103 was impeded by building foundations and concrete transformer casements in the ground. In addition, a large portion of the area around the building is covered by asphalt. Each of these impediments provide engineering controls to the remaining soil contaminants, preventing exposure to the soil. Further, the excavation of all of the remaining low-level contaminated soils was not deemed practical due to the possible adverse impact on the standing buildings.

At Building 103, petroleum contamination was identified in groundwater as part of the Resource Conservation and Recovery Act (RCRA) Underground Storage Tank (UST) program. A contamination Assessment Report (CAR) and Remedial Action Plan (RAP) have been developed, and implementation of the RAP is pending. Therefore, the groundwater issues associated with Building 103 are not addressed as part of this Proposed Plan.

The land-use controls at Building 103 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 Federal Regulations, Section 1910.120) and appropriate RCRA and CERCLA laws as a result of elevated SVOC 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 an unrestricted property use was evaluated for Building 103. This alternative requires excavation from beneath buildings and concrete/asphalt surfaces, which could cause damage to the structures. Due to the possible damage to buildings and the current level of protection provided by the buildings, this alternative was determined not practical.

The U.S. Navy recognizes that CERCLA allows various options for implementing remedies based on site conditions. For Building 103 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 Brownfields Cleanup Criteria Rule. Therefore, there is sufficient justification to propose land-use controls for the site.

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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 Building 103 and other BRAC sites, will include responses to comments received during the public comment period. Concurrence from EPA and FDEP will be obtained before implementing the final remedy.

